Finance and society

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Publication date:
2015

Document Version
Publisher's PDF, also known as Version of record

Finance and Society: On the Foundations of Corporate Social Responsibility

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PROEFSCHRIFT

ter verkrijging van de graad van doctor aan Tilburg University op gezag van de rector magnificus, prof. dr. E.H.L. Aarts, in het openbaar te verdedigen ten overstaan van een door het college voor promoties aangewezen commissie in de Aula van de Universiteit op dinsdag 23 juni 2015 om 10.15 uur

door

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Acknowledgement

Coming to do my doctorate at Tilburg University was an accident, as I only got to know this place in 2008 when I met an exchange student from Tilburg, Yike Wang, at Cornell University where I was also an exchange student. That was the time when the global financial crisis was in full swing, which also triggered my interest in doing research on the ethical issues in finance, and therefore I decided to focus on the topic of corporate social responsibility. Looking backward after five years, I never regret my decision of coming to Tilburg. Over these five years I have met many great people here. Not only would this thesis not exist without them, but I would also be a rather different person without their advice, company, and support. I would like to thank all the people who helped me complete my doctorate and become a better academic in these five years.

First and most, I am greatly indebted to my supervisor Luc Renneboog. I had been calling him "Professor Renneboog" until the end of the first year of my Research Master, when he told me in an email: "you can call me Luc". Indeed, Luc is a very approachable person, and we have established strong mentoring and collaboration relationship over these years. I consider Luc as a great supervisor, not only because he is always available whenever I have questions and trying to help me out whenever I encounter problems in research, but also because he cares a lot about my development as an integrated person. We often emailed each other at mid-nights and during weekends to talk about research, and I have been impressed by his enormous devotedness to his students. It was also him who convinced me that corporate social responsibility (CSR) is the right topic for me to work on, and I never regret. Luc always told me that although doing quality research and publishing on top journals should be the priority for a researcher, but the most important thing in life is to be happy, and he didn't say this lightly. He often shared with me interesting things about his family, his study experience, all of which help me a great deal in adapting to the European culture and lifestyle, and make me think a lot about things outside research that could define my happiness. One regret of Luc is that he hasn't been able to educate me to appreciate classical music, but I have learned a lot from him on work attitude, enthusiasm about research, and sense of responsibility to students and family.

My deep gratitude goes also to the members of my dissertation committee: Peter de Goeij, Oliver Spalt, Lieven Baele, Rik Frehen, Alberto Manconi, and Sebastian Ebert. They have given me a lot of critical but also highly constructive comments during the writing of my thesis, and offered me great

supports during my job market. Thanks to Allen Ferrell, I was able to visit Harvard University for a semester at the beginning of my Ph.D. and had the opportunity to talk to other world-renowned researchers such as Andrei Shleifer, Lucian Bebchuk, Mark Roe, and Holger Spamann, all of whom gave me critical feedback on my ideas and papers.

It has been a great honor to work with the coauthors of my papers, Luc Renneboog (again), Christopher Marquis, Allen Ferrell (again), Sunny Sun, Bing Ren, etc., and I appreciate their enormous inputs in our joint work. Working with them is not only about collaborating on projects, but I have also learned quite a lot from them on how to write papers. For example, I was always impressed by that Chris responded to my emails at 3 or 4AM in his time, and he told me this is the key to being efficient, and by that Sunny wrote voluminous op-eds for practitioner journals while still managed to publish well in top academic journals. They also helped me tremendously during my job market. Luc (as my supervisor), Chris, Allen, Sunny were all so kind to write me recommendation letters, which I believe played an important role in helping me land on my ideal job in the end.

I benefited a lot from colleagues in the Finance Department and Tilburg Sustainability Center (TSC), both of which I am affiliated with. I regularly participated and presented my papers at the departmental seminars and TSC seminars. Many professors, although not on my committee nor are my coauthors, have given many valuable feedbacks on my research, such as Joost Driessen, Marco Da Rin, Fabio Braggion, Fabio Castiglionesi, Frank de Jong, Olivier de Jonghe, Fabiana Penas, Juan Carlos Rodriguez, Jos Grazell, etc. Fabiana was particularly helpful for my job market flyout at NYU Stern School of Business. I am also grateful to my TSC fellows Arian Borgers and Jeroen Derwall for inviting me to give a practice job talk at Maastricht University which helped me a great deal in preparation for my job market. My special gratitude also goes to our department secretariat Marie-Cecile, Loes, and Helma for helping me enormously with all administrative issues, and I have been getting along with them like family members. The staff at the office of the CentER Graduate School also deserves a big "thank you" for their efficiency and helpful attitude.

My gratitude goes also to all my fellow PhD and Research Master students in Tilburg and elsewhere. I often discussed research ideas with them and bombarded them with all kinds of technical questions. It is always easy for me to walk into their offices and have an hour-long conversation on research. It has also been a lot of fun to interact with them, through dinner, traveling, or just having casual chats. I greatly enjoyed the time spent with Ran, Yiyi, Ljubica, Asye, Mancy, Elisabeth, Haikun, Marshall, Elena, Tamas, Zorka, Radomir, Ferenc, Joao, Diana, Andreas, Cisil, Larissa, Kristy, Cara, Patrick,

Bernardus, Yuejuan, Yang, Yaping, etc., and several visiting PhDs such as Leila, Tobias, Julien, Paul, Camille, Lin, Lene, Michela (all names are listed without ordering), as well as my PhD and Research Master colleagues in other departments and other schools of Tilburg, and at Harvard. It is an extremely difficult task to list all their names here as there are simply so many of them and I am so afraid of omitting anyone, and this in no way means they are less important. My PhD journey won't be so enjoyable without them.

I am grateful to my Dutch landlord, Mr. Gerard Smits, with whom I have been living for almost five years. He has provided great living condition in his house and is always very helpful. I don't remember how many times he drove me between the train station and our house even at the very early morning, and how many times he repaired my bicycle. I have learned one of the most important living skill in the Netherlands – repairing a bike – from him. I has also been a great pleasure to live with my housemates in the past five years: Mirella, Xu, and Qiwei. All of them made this house my second home.

Finally, I thank my family for their love and support during all these years. As I was completing my PhD abroad, I was not always able to be a part of their everyday life. I know they have been missing me a lot, but luckily we are able to Skype and text-message with each other on daily basis. Although they don't speak English and don't understand the research topics I have been working on, they are always my strongest support at the back.

Hao Liang

Tilburg, May 2015

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Introduction

The classical view in economics on the role of modern corporations in society has traditionally rested on the assumption that corporations are profit maximizers, and have no reason to fit society's moral standards. Mainstream economists have thus long embraced the "shareholder value maximization" approach, which posits that firms should be controlled by profit-maximizing shareholders while other stakeholders are protected by contracts and regulation. However, in reality, corporations very often engage in activities beyond profit maximization, and are voluntarily involved in issues related to other stakeholders' interests, such as providing generous employee benefits, producing environmental-friendly goods, screening out suppliers that use child labor, and initiating projects that are aimed at helping the poor in less developed countries. Corporate social responsibility (CSR), as what the aforementioned stakeholder-oriented behaviors are called, has increasingly become a mainstream business activity: firms are investing even more resources in public goods provision, and many companies reduce negative externalities below levels required by law. Are these CSR activities good or bad from the shareholder's perspective? Why do firms want to be socially responsible rather than pure profit maximizers? Why do some firms engage more in CSR than others?

These questions were very difficult to answer empirically, largely due to the fact that it was very hard to measure "CSR", especially on a global scale. In recent years, some data providers have begun to assemble cross-country firm-level information on corporate involvement in stakeholder issues by giving CSR ratings to companies on major equity indices around the world. In this dissertation, I try to utilize these newly assembled data to address the above questions regarding corporate tradeoff between shareholders and other stakeholders, as well as their implications for firm value and social welfare. The CSR data used in these chapters usually measure corporations' engagement and compliance to environmental, social, and traditional corporate governance (ESG) issues. "Engagement" refers to a firm's voluntary initiation in CSR projects, while "compliance" refers to the legally mandated conducts that a firm has to follow. For example, engagement in ESG may include a company's voluntary R&D project that is deemed as environmental friendly (the "E" dimension), or an employee training

program that is aimed at increasing employee welfare and productivity (the "S" dimension), or a voluntary increase in gender and racial diversity of the board of directors (the "G" dimension). compliance to ESG issues may include strictly following environmental regulations on CO_2 emissions (the "E" dimension), not using child labor and guaranteeing minimum working conditions of factories in developing countries (the "S" dimension), and sticking to the legally required ratio of independent directors on the board (the "G" dimension). These engagement and compliance activities in various ESG dimensions properly capture different aspects of stakeholder issues. Given these conceptual and empirical details, this dissertation investigates what factors at both the macro-level and the micro-level drive corporations' tradeoff between shareholder-orientation and orientation to other stakeholders, or put differently, what are the "foundations" of CSR at various levels.

In the first chapter, titled "On the Foundations of Corporate Social Responsibility", I focus on the ***legal and institutional foundations of CSR*** by investigating the roles of legal origins (vis-a-vis political institutions, regulations, and social preferences) in providing the fertile ground for corporate tradeoff between shareholders and other stakeholders, thus driving cross-country variations in CSR practices. The paper contrasts three broad views on CSR: (1) it is a response to government failures; (2) it reflects individual and societal preferences; (3) it is a result of a country's legal origin that shapes the corporations' tradeoff between shareholder and stakeholder values. By empirically testing these views, the paper shows that the variations in CSR and sustainability are most fundamentally driven by legal origins. Among the different legal origins, the English common law fosters CSR the least, whereas the Scandinavian legal origin fosters it the most. Firms from German legal origin countries outperform their French counterparts in terms of ecological and environmental policy, but the French legal origin firms outperform German legal origin companies in social issues and labor relations. In contrast, political institutions, regulations, and social preferences are not strong and consistent predictors of CSR. These results are robust across different CSR ratings and estimation methods, and are further supported by several quasi-natural experiments. Finally, the paper finds that protecting shareholder rights is not necessarily at odds with protecting stakeholder

rights, or in other words, finance and 'good society' are not necessarily in conflict because CSR can also contribute to the maximization of shareholder value (as proxied by e.g. Tobin's Q).

In the second chapter, titled "Socially Responsible Firms", I investigate the ***agency foundations of CSR*** by contrasting two general views over CSR activities: (1) the CSR "value-enhancing view", which argues that socially responsible firms, such as firms that promote efforts to help protect the environment, promote social equality, improve community relationships, can and often do adhere to value-maximizing corporate governance practices; (2) the agency view, beginning with Milton Friedman's (1970) claim that 'the only social responsibility of corporations is to make money', which considers CSR as a manifestation of managerial agency problems inside the firm, which enable managers to engage in CSR that benefits themselves at the expense of shareholders. The paper takes a comprehensive look at the CSR agency and value-enhancing views around the globe. By means of a rich and partly proprietary CSR dataset with global coverage across a large number of countries and covering thousands of the largest global companies, these two views are tested by examining whether traditional corporate finance proxies for firm agency problems, such as capital spending cash flows, managerial compensation arrangements, ownership structures, and country-level investor protection laws, account for firms' CRS activities. Based on this comprehensive analysis the paper finds no evidence that CSR conduct is a function of firm agency problems. Rather, consistent with the value-enhancing view, well-governed firms are more likely to be socially responsible. In addition, CSR is associated with managerial pay-for-performance and maximization of firm value, and counterbalances the negative effects of managerial entrenchment on firm value, which support the value-enhancing view that CSR in general is not inconsistent with shareholder wealth maximization.

The third chapter, titled "Concentrated Wealth and Stakeholder Value", investigates the ***ownership foundations of CSR***. In the majority of firms around the world, corporate ownership is very concentrated, especially around wealthy families and states. In this paper, I study the effects of family- and state-control on stakeholder value as proxied by a firm's engagement in and compliance to corporate social responsibility (CSR) issues. Using extensive

public and proprietary CSR data on firms in 60 countries, I find that: (1) Ownership concentration has a significant but non-linear impact on stakeholder value but not shareholder value. (2) The type of controlling shareholder has a strong impact on stakeholder value: family-controlled firms have significantly worse CSR performance, whereas state-controlled firms have significantly better CSR performance. (3) The CSR performance is lowest in family firms where family members — especially of the second and following generations — serve as CEOs, and CSR performance is highest in state firms with politically-connected CEOs. (4) The negative effect of family-control on stakeholder value further translates into lower firm value, whereas the positive effect of state-control does not lead to higher firm value. All results survive after controlling for various country- and firm-level factors as well as country, industry, and year fixed effects, implementing an instrumental variable strategy, and performing quasi-natural experiments to get proper identification. These findings entail a critical evaluation on the role of family-control on corporate social responsibility and a more benevolent view of government ownership in dealing with market externalities.

In Chapter 4, I investigate the cultural and cognitive foundations of CSR. The paper draws on the linguistics literature and the cognitive category literature which suggest that obligatory future-time-reference (FTR) in a language reduces the psychological importance of the future (grammatically separating the future and the present leads speakers to disassociate the future from the present, as this would make the future feel more distant). Applying this to a corporate context, the paper theorizes that companies with strong-FTR languages as their official/working language would be less future orientated and hence perform worse in future-oriented activities such as corporate social responsibility (CSR)—firms' environmental, social, and governance engagement—compared to those in weak-FTR language environments. Examining thousands of global companies across 59 countries, the paper finds support for the above conjecture. This is further supported by testing several factors that are expected to mitigate the negative relation between FTR and CSR performance: CSR performance is weaker for firms that have greater exposure to diverse global languages as a result of (a) being headquartered in countries with higher degree of globalization, (b) being more international (with production or sales facilities abroad), and (c) having a CEO with more international

experience and overseas education. These results are robust after controlling for country fixed effects and in a quasi-natural experiment setting, and similar language effect is found for other future-oriented organizational behaviors such as R&D expenditure. Overall, these results suggest that *language use by corporations is a key cultural variable that is a strong predictor of CSR and corporate future-orientation*, and thus the paper introduces a new way to think about the underlying variation in global CSR practices.

The fifth and sixth chapters look at the social influence of state-owned firms and the social context of corporate governance. Instead of using the cross-country firm-level CSR ratings, they zoom in firms in a particular country – China – and focus on the role of the state (government) in influencing firm behavior.

Chapter 5, titled "The Political Determinants of Executive Compensation: Evidence from an Emerging Economy", investigates how state presence in corporations through shareholding and political connections affect managerial compensation. This is based on the premise that when the economy is regulated, corporate governance mechanisms such as executive compensation are subject to political forces other than competitive market-based forces. We study the political determinants of executive compensation by exploring an exogenous shock that removed market friction of share-tradability and use a large proprietary sample of Chinese firms. We find that under political constraints of nontradable shares, State ownership is negatively associated with managerial pay level and positively associated with pay-performance sensitivity according to asset-based benchmark. Board structures such as independent directors and compensation committee do not function to harness managerial pay, and other market-based factors do not have significant influence. However, all the effects reverse following the removal of market friction of share tradability.

Chapter 6, titled "An Anatomy of State-Control in the Globalization of State-Owned Enterprises", extends the analysis of state influence to the context of international investment, and identifies two types of state control mechanisms that influence globalization decisions and the degree of globalization of state-owned enterprises (SOEs): state ownership control and

executives' political connections, both of which are contingent upon the home country's evolving institutional environments. Using a two-step corporate globalization decision model and 17,272 firm-year observations of non-financial, Chinese-listed companies, the paper finds a strong impact of both types of state control on SOEs' globalization, and that the impacts differ between the periods before and after domestic governance reform and across different globalization-decision steps. The diminishing impact of executives' political connections and the increasing impact of state ownership control on firms' degree of globalization demonstrate the evolving relationship between the state and the managers, as well as the dynamics of state control in globalizing SOEs.

Taken together, these chapters provide a comprehensive analysis of the foundations of CSR and corporate shareholder-stakeholder relationship from various perspectives: legal, agency, ownership, cultural, and the social impact of the state as a key shareholder as well as stakeholder. Theoretically, the dissertation contributes to the understanding of why and how social responsibility is divided between the state and the market, and how profit maximization and social objectives coexist in various types of corporations. Practically, I hope this dissertation can have implications for policymakers aiming at stimulating socially desirable corporate behaviors – while not jeopardizing shareholder welfare at the same time – and the sustainable development of the economy.

Chapter 1. On the Foundations of Corporate Social Responsibility

Hao Liang, Luc Renneboog [1]

ABSTRACT

We investigate the fundamental determinants and value implications of corporate social responsibility (CSR) around the world. We contrast three broad views on CSR: (1) it is a response to government failures; (2) it reflects individual and societal preferences; (3) it is an equilibrium result of a country's legal origin that shapes the corporations' tradeoff between shareholder and stakeholder values. Using public and proprietary country-level sustainability and firm-level CSR data, we find that: (a) Legal origins are more fundamental sources of CSR than political, social, and firm-level financial forces; (b) The English common law, widely-recognized as being most shareholder-oriented and economically efficient, fosters CSR and sustainability the least, while companies under the Scandinavian civil law origin assume most social responsibilities; (c) Globally, CSR contributes to shareholder value maximization.

Keywords: Corporate social responsibility, sustainability, legal origins, stakeholder orientation, shareholder value.

JEL Code: G30, K22, M14, O10, O57

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[1] Both authors are from Tilburg University. We are very grateful to Andrei Shleifer and Holger Spamann for comments and suggestions on the early versions. We also wish to thank Licht Amir, Ian Appel, Lucian Bebchuk, Gennaro Bernile, Daniel Beunza, Archie Carroll, Martijn Cremers, Henrik Cronqvist, Hans Degryse, Magali Delmas, Elroy Dimson, Joost Driessen, Robert Eccles, Tore Ellingsen, Fabrizio Ferraro, Allen Ferrell, Caroline Flammer, Julian Franks, Edward Freeman, Richard Friberg, Jesse Fried, William Goetzmann, Rebecca Henderson, Nancy Huyghebaert, Yannis Ioannou, Oguzhan Karakas, Philipp Krueger, Thomas Lambert, Alberto Manconi, Chris Marquis, Mark Roe, Amir Rubin, George Sefareim, Joaquim Schwalbach, Roy Shapira, Sunny Li Sun, Jörgen Weibull, Nan Zhou, and the seminar participants at Harvard Law School, Harvard Business School, Tilburg University, London Business School, University of Cambridge (Judge), Stockholm School of Economics, University of Zurich, **Institut Bachelier and Ecole Polytechnique,** Humboldt-Berlin University, University of Notre Dame (Mendoza), University Paris Dauphine, Norwegian School of Economics, Cardiff Business School, as well as the conference participants at the 10th and 11th Corporate Finance Day (Ghent and Liège), EFMA 2014 Conference, 2014 China International Conference in Finance, Harvard Business School Conference on Sustainability and the Corporation: the Big Ideas, Vigeo's Corporate Social Responsibility Conference 'Assessing Corporate and Sovereign Intangible Capital' (Paris), and the 2nd Geneva Summit of Sustainable Finance for helpful comments and suggestions. All errors are our own. Corresponding address: 5000 LE Tilburg, the Netherlands. Email: H.Liang@uvt.nl; Luc.Renneboog@uvt.nl.

"Business cannot succeed in a society that fails. Likewise, where and when business is stifled, societies fail to thrive."

—Björn Stigson, World Business Council for Sustainable Development

"Driving shareholder wealth at the expense of everything else will not create a company that's built to last."

—Paul Polman, CEO of Unilever, Harvard Business Review (2012)

Introduction

It has been widely believed that the sustainability of the society – the pursuit of sustainable economic growth through strong environmental protections, social welfare, and rules of laws – crucially hinges on the socially responsible operational and investment behavior of modern corporations (Porter, 1991; United Nations Global Compact, 2013). Accordingly, the importance of corporate social responsibility (CSR) and the so-called stakeholder rights has been recognized by researchers, policymakers, and practitioners. What fundamental forces steer companies to behave as good citizens in society rather than as pure profit maximizers? Is protecting stakeholder rights in conflict with protecting shareholder rights? What are their implications to societal sustainability? These are the key questions of this study.

Adequately addressing these questions was difficult in the past, largely because cross-country firm-level CSR data did not exist, until recently. This paper makes use of these new data to empirically address the issue of the shareholder-stakeholder tradeoff, as well as its fundamental determinants and corporate consequences, on a global scale. From a classical economics perspective, CSR can be broadly considered as protecting the interests and addressing the needs of various stakeholders, and can be measured by both a firm's *engagement* (voluntarily initiated) in and its *compliance* (legally mandated) to environmental, social, and governance (ESG) issues.[2] These issues are mostly related to concerns for

[2] For example, engagement in ESG may include corporate initiatives such as voluntarily developing an R&D project that is deemed as environmental friendly (the "E" dimension), or voluntarily developing employee training programs that are aimed to increase employee welfare and productivity (the "S" dimension), or voluntarily increase gender and racial diversity of the board of directors (the "G" dimension). compliance in ESG issues may include e.g. compliance to environmental regulation on CO2 emission (the "E" dimension), not using child labor and guaranteeing minimum working conditions of factories in developing countries (the "S" dimension), and sticking to the legally required ratio of independent directors on the board (the "G" dimension).

the environment (such as climate change, hazardous waste, nuclear energy, ecological balance, etc.), society (such as social diversity, human rights, consumer protection, consumer consciousness, etc.), and corporate governance (such as management and board structures and representation, executive compensation, anti-corruption, etc).[3]

Some are skeptical about CSR and consider it a value-diverting activity that does not contribute to aggregate social welfare and sustainability (e.g., Friedman, 1970; Jensen, 2001; Cheng, Hong and Shue, 2013; Masulis and Reza, 2014). In this paper, we quantify the relationship between firm-level CSR and country-level sustainability by showing that CSR scores are significantly correlated with country-level sustainability ratings in many dimensions. Some correlations are almost 50%, which is substantial given that the CSR scores and country sustainability ratings are from very different data sources and use different rating metrics. Therefore, although the focus in this paper is on firm-level CSR performance, we also try to connect the determinants of CSR to the broader theme of country-level sustainability and social welfare.

The extant literature mostly considers CSR as a firm's voluntary initiative, and investigates how it affects the firm's financial and operational performance, which is usually termed as 'doing well by doing good' (e.g., Dowell *et al.*, 2000; Orlitzky, Schmidt, and Rynes, 2003; Renneboog, ter Horst and Zhang, 2008, 2011; Guenster, Bauer, Derwall, and Koedijk, 2011; Cheng, Ioannou, and Serafeim, 2012; Deng, Kang, and Low, 2013). Others study the inverse, 'doing good by doing well', namely whether it is only well-performing firms that can afford to adhere to ESG criteria (e.g., Hong, Kubik, and Scheinkman, 2012). In addition, these studies usually take only one perspective of CSR, such as employee satisfaction (Edmans, 2011, 2012; Edmans, Li, and Zhang, 2014), environmental protection (e.g., Dowell, Hart, and Yeung, 2000; Konar and Cohen, 2001), corporate philanthropy (e.g., Seifert, Morris, and Bartkus, 2004; Masulis and Reza, 2014), or consumer satisfaction (e.g., Luo and Bhattacharya, 2006; Servaes and Tamayo, 2013). The theoretical predictions and empirical evidence to date on the causal relationship between "doing good" and "doing well" are rather mixed, which posts challenge to understand what drives corporations to balance their shareholders and other stakeholders, and what are the roots and foundations of CSR. Given that both "doing good" and "doing well" are related to governance issues such as corporate shareholder-stakeholder relationship,

[3] Similarly, The European Federation of Financial Analysts Societies (EFFAS) interprets ESG as the need to focus on: (1) energy efficiency, (2) greenhouse gas emissions, (3) staff turnover, (4) training and qualification, (5) maturity of workforce, (6) absenteeism rate, (7) litigation risks, (8) corruption, and (9) revenues from new products.

and corporate governance is mostly determined by country-level factors (Doidge, Karolyi, and Stulz, 2007), this motivates us to look for country-level determinants that may be more fundamental drivers of such shareholder-stakeholder tradeoff. In addition, if, apart from voluntary adoption, CSR is partly legally mandated, a single country study is not appropriate and one can only investigate the foundations of CSR within a cross-country institutional framework. Ioannou and Serafeim (2012) take such cross-country perspective and empirically examine the association between "national institutions" and the scores on a CSR index, although most of what they call "institutions" such as a leftist political ideology[4] are not true institutions with persistent and durable features in the spirit of North (1981), but more like the consequences of institutions, which implies that those proxies for institutions may still be endogenously determined. Nevertheless, as revealed both by their data and ours, there are huge cross-country variations in CSR ratings and actual stakeholder practices, the magnitudes of which dominate that of cross-sectional and time-series differences at the firm-level.

In this paper, we try to go one step further and explain the cross-country variations of CSR by focusing on its foundations from three broad economic perspectives. The "division" view holds that there is a division of roles between the government (the public sector) and the market (the private sector) in economic activities (Friedman, 1970; Besley and Ghatak, 2001; Benabou & Tirole, 2010). Under this public-private dichotomy, the market's role is to harness corporations' pursuit of self-interest for the pursuit of efficiency and market actors only have responsibilities to their shareholders, while the government's responsibility is to correct market failures whenever externalities stand in the way of efficiency, and to redistribute income and wealth. CSR as a private provision of public goods emerges as an alternative response to market and distributive failures by the government.

The "preference" view holds that CSR reflects aggregate individual and society's preferences for corporations to take social responsibility (Benabou and Tirole, 2003, 2006). This view attributes CSR to social demands (Di Giuli and Kostovetsky, 2014). In addition, social preferences are not autonomously formed, but are usually shaped and aggregated by political institutions through voting and elections (e.g., Rajan and Zingales, 2003; Pagano and Volpin, 2005; Perotti and von Thadden, 2006; Roe, 2003, 2006). Political institutions are a reflection of who possesses the political power to

[4] These variables include the measurement of regulations promoting competition, the level of corruption, leftist political ideologies, the power of labor unions, the availability of human capital, the presence of market-based financial systems, the existence of a CSR stock market index, etc. In addition, the authors did not include legal origins, which we find in our paper are the fundamental determinants that can also simultaneously influence political and other outcomes.

shape laws and regulations that benefit their political constituencies —their stakeholders (Perotti and von Thadden, 2006). Therefore, the degree to which different stakeholders are involved in political participation reflects to what extent CSR reflects their preferences.

The third view—which is more novel and central to this paper—is that legal frameworks can constitute fertile ground for economic outcomes, such as CSR, and are shaped by a country's legal origin (La Porta *et al.*, 2008). This "legal origin" view hinges on two conflicting theories of the firm (Williamson, 1981). The first views the firm as a nexus of internal relationships between owners and the management (the principal-agent relation), and suggests that the purpose of corporations is to maximize profits and shareholder value. The second theory focuses on the external relations between the firm and its stakeholders, and views the firm as a nexus of (sometimes also intangible and implicit) contracts between interested parties—in addition to shareholders, these comprise customers, suppliers, owners, managers, employees, and communities ("stakeholders")[5]—who realize economic gains through their participation in these contractual relationships. Corporations constantly trade off these two types of contractual relationships, that is, they are faced with the tradeoff between a shareholder and (other) stakeholders' focus. Under the legal origin view, such contractual relationships are shaped by laws rooted in a country's legal origin, which fertilizes various contract-based economic outcomes including the above corporate shareholder-stakeholder tradeoff.

By empirically testing these three theoretical viewpoints, we find strong evidence supporting the legal origin view, but not the division nor the preference views on CSR. Our results also do not support the traditional "doing good by doing well" hypothesis. Institutional mechanisms that exclusively steer shareholder protection and financial development often fail to maximize stakeholder wealth and societal sustainability: among the different legal origins, the English common law fosters CSR the least, whereas the Scandinavian legal origin fosters it the most. In addition, firms from German legal origin countries outperform their French counterparts in terms of ecological and environmental policy, but the French legal origin firms outperform German legal origin companies in social issues and labor relations. This result survives the inclusion of an aggressive set of country- and firm-level control variables and several quasi-natural experiments. We also find that political institutions, such as democratic participation, that are believed to be key determinants of access to finance are not

[5] The stakeholder perspective dates back to Edward Freeman's (1984) influential book *Strategic Management: A Stakeholder Approach*. The book describes and recommends the methods by which management can give due regard to the interests of the stakeholder groups. Similar definitions and arguments can be found in Donaldson and Preston (1995), Mitchell, Agle, and Wood (1997), Tirole (2001), Friedman and Miles (2002) and Phillips (2003).

preconditions for CSR and sustainability, and sometimes even hinder CSR implementation. Finally, we find that protecting shareholder rights is not necessarily at odds with protecting stakeholder rights, or in other words, finance and 'good society' are not necessarily at odds because CSR can also contribute to the maximization of shareholder value (as proxied by e.g. Tobin's Q).

Our paper contributes in the following ways. First, while most cross-country studies on the role of fundamental institutions focus on country-level differences and use macro-level data that usually suffer from small sample inference and sensitivity to outliers, our unit of analysis is not only the country but also the firm for which we have extensive proprietary and public data on their performance on ESG issues, which also enable us to differentiate between CSR *engagement* and *compliance*. The fact that we combine a macro- and micro-level analysis enables us to better understand the mechanisms of how fundamental institutions determine corporate behavior. Second, examining the potential tensions between shareholders and stakeholders at the micro-level, as well as between financial development and societal sustainability at the macro-level, may be liable to endogeneity issues. Our approaches circumvent these problems as we investigate such tension by focusing on their common fundamental antecedents—the legal origins, political institutions, and social preferences—that are well established in economic theories, and we apply several global-scale quasi-experiments to identify causality. All results point to the causation from legal origin to firm CSR, and from CSR to firm value, and therefore offer a clearer picture of the determinants and consequences of CSR. Third, our study has significant policy and welfare implications: if institutional origins are found to be of first-order importance, then policymakers could imitate the tools associated with the winning origin. Hence, our empirical findings can offer a guide for institutional reform aiming at stimulating economic and societal sustainability. Many large corporations and countries worldwide today find it hard to achieve good citizenship and sustainable development, in part because of institutional heritage.

The rest of the paper is organized as follows. Section I reviews three broad theories of CSR and lays out their respective empirical predictions. Section II describes our data and empirical strategies. Section III exhibits the empirical results, while Section IV presents several robustness checks. Section V comprises several quasi-experimental tests to further establish causality. Section VI explores the value implications of CSR. Section VII concludes and formulates some policy implications.

Theories of Corporate Social Responsibility

We begin our analysis by considering three broad economic theories of CSR, motivated by Benabou and Tirole (2010), Kitzmueller and Shimshack (2012), and de Bettignies and Robinson (2013). In their frameworks, CSR as a form of private provision of public goods is determined by both supply-side and demand-side factors. The supply-side factors concern a division of responsibilities between the state (government) and the market (corporations), while the demand-side factors concern the society's preferences for CSR and how such preferences can be aggregated by political institutions. We then propose a legal origin view that combines these factors, and also provides grounds for understanding the relationship between shareholder value and stakeholder value.

The Division View

The division view of CSR addresses the question as to why corporations empower themselves to care about society and provide public goods and hence be a substitute for democratically elected governments in this respect. The classical economics framework embraces a state-market dichotomy: the responsibilities of governments and of the private sector are largely divided, with corporations being profit-driven and shareholder-oriented, and governments correcting externalities and distributive failures, usually through regulations (Djankov, La Porta, Lopez-de-Silanes, and Shleifer, 2002; de Bettignies and Robinson, 2013). CSR emerges as a substitute for governments that bend to wealthy constituents' opposition to redistributive policies (Benabou and Tirole, 2010). Following this line, de Bettignies & Robinson (2013) argue more specifically that CSR arises as a response to inefficient regulation. This argument essentially predicts that CSR is more active in countries where governments fail to supply a sufficient level of public goods through the governments' regulatory policies.

The Preference View

The preference view, to the contrary, argues that it is stakeholders themselves who demand that corporations be more socially responsible. This preference view has two dimensions. The first one is that CSR reflects individuals' or society's direct preferences for social goods, other than monetary incentives such as shareholder returns (Benabou and Tirole, 2003, 2006; Besley and Ghatak, 2005). Benabou and Tirole (2006) term such preferences 'intrinsic motivations'. In some societies, the culture and norms are such that citizens prefer corporations to be more socially responsible, sometimes

through labor movements and political contests (Acemoglu, Robinson, and Verdier, 2014). Therefore, one would expect CSR to be stronger in countries with such standards and norms that put more emphasis on caring about society.

The second dimension is that citizenry preferences are usually reflected through voters putting pressure on politicians to deliver certain economic policies (Acemoglu and Robinson, 2012). Preferences can thus be shaped and aggregated by political institutions. Political institutions refer to a set of rules such as democracy, electoral rules, legislative procedures, constraints to the political executive, etc. (North, 1981; LLSV, 1999; Glaeser *et al.*, 2004; Roe, 2006; Matten and Moon, 2008). The principal mode of political decision making is elections, and parties that win them shape laws that benefit their political constituencies—their stakeholders (Botero *et al.*, 2004). Hence, political decisions are influenced by voters in elections who represent preferences and economic interests of different stakeholders (Kitzmueller and Shimshack, 2012). Therefore, political institutions such as the degree of democratic participation determine which and to what extent stakeholders can influence decision-making through political participation and voting for their representatives to implement the policies that protect their interests. For example, labor protection is usually stronger in countries with more democratic participation, unionization, and proportional electoral systems (e.g., Roe, 2003; Pagano and Volpin, 2005; Perotti and von Thadden, 2006; Perotti and Schwienbacher, 2009). This essentially implies that more democratic political institutions can more broadly aggregate various stakeholders' preferences by making stakeholders' voices be heard, and are thus related to a higher level of CSR. In the words of Acemoglu and Robinson (2012), such democratic participation is considered as part of "inclusive institutions" which epitomize "the good society". Of course, the premise of this prediction is that democratic elections provide the legitimacy to define what is "right" for society (Benabou and Tirole, 2010).

The Legal Origin View

The fundamental roles of legal origins on economic outcomes are advocated by La Porta et al. (2008), and have been adopted by much of the law, finance, and economics literature. The legal origin theory argues that the largely exogenous legal origins—common versus civil law, and the legal subfamilies within the civil law tradition such as German, French, and Scandinavian legal systems—utilize different strategies for social control of business, contract enforcement, property rights protection, and dealing with market failure. These differences form the basis of *contracting* that is believed to be the micro-foundation of financial and economic prosperity, and the English common

law tradition is widely believed to be superior to other civil law traditions in this regard.[6] Among the myriad of contractual relationships, the internal contract between owners and the management, and the external one between the firm and its various stakeholders are of foremost importance as they are related to two fundamental yet conflicting "theories of the firm" (Williamson, 1981). Therefore, legal origins can provide a foundation for the corporate tradeoff between shareholder orientation (internal contracting) and stakeholder orientation (external contracting).

However, there are fierce debates regarding which type of contracting (or orientation) is more efficient at providing social goods. The premise of internal contracting rests on the principal-agent paradigm, under which corporate law aims to address the agency conflicts between managers and shareholders, and between controlling and minority shareholders. The common law tradition—under the traditional "law and finance" view—is believed to better address agency conflicts, which leads to the development of deeper and broader markets that reduce the costs of external finance to firms and facilitate efficient capital allocation, and hence leads to a higher level of economic prosperity (Rajan and Zingales, 1998). Therefore, maximizing shareholder value is tantamount to maximizing social value, which will in turn benefit other stakeholders, and thus shareholder value maximization is central to the principle of capitalism (Williamson, 1985).

In contrast, the premise of external contracting—or stakeholder-orientation—lies in the paradigm that the company is managed for the benefits and needs of all stakeholders, not merely its shareholders (Freeman, 1984; Henderson and Ramanna, 2013). Under this paradigm, stakeholder welfare would not be achieved through the "trickling-down" of enlightened shareholder value and capital market development, but has to be directly protected by stakeholder-oriented laws (Freeman, 1984). Sometimes it even hinges on laws that are "laxer" regarding shareholder protection, because CSR as provision of public goods goes beyond the ownership and property rights that are essential in the "law and finance" view. In this regard, the civil law traditions are believed to be more stakeholder-orientated in defining company law (Matten and Moon, 2008). For example, in Germany, corporations are legally required to pursue the interests of parties other than only shareholders through the system of *co-determination* in which employees and shareholders have an equal number of seats on the supervisory board (Allen, Carletti, and Marquez, 2009). The harmonization laws of the European

[6] However, the superiority of the common law has been questioned in some other studies. For example, Roe (2006) argues that the outperformance of common law countries in financial development is not due to legal origin, but due to the postwar legislatures and political ideologies. Spamann (2010) reconstructed the LLSV's legal data, and concludes that the superiority of the common law is not valid.

Community include provisions permitting corporations to take into account the interests of creditors, customers, potential investors, and employees. The corporate laws in Japan presume that Japanese corporations exist within a tightly connected and interrelated set of stakeholders, including suppliers, customers, lending institutions, and friendly corporations (Donaldson and Preston, 1995).

In the next section, we test these three broad views using several newly assembled firm-level CSR samples covering almost 70 countries.

Data and Empirical Strategy

CSR Data and Descriptive Statistics

In recent years, a variety of ESG indices measuring firm-level CSR performance have been constructed by means of different rating methodologies (e.g. some based on a box-ticking approach—compliance, or on interpretative analysis—engagement) and hinge on various datasets, some of which are proprietary. We have extensively discussed the reliability of these ratings with practitioners, policymakers, and data providers. One could raise the concern that the "G" component of ESG measurement is overlapping with the traditional corporate governance issues which are materially different from the other stakeholder issues, as improving corporate governance does not necessarily require monetary investments while improving the welfare of other stakeholders does (Krueger, 2013). Therefore, we have deliberately selected databases that minimize the weight on corporate governance regulation, while putting more emphasis on environmental and social issues.

Our main data on ESG performance are from MSCI's Intangible Value Assessment (IVA) database. The IVA indices measure a corporation's environmental and social risks and opportunities, which refer to issues where companies generate large environmental and social externalities and may be forced to internalize (future) unanticipated costs associated with those externalities. The rating then takes into account the extent to which a company has developed robust CSR strategies and demonstrated a strong track record in managing these specific risks and opportunities. Such rating methods capture both the legally mandated aspects (unanticipated costs associated with regulatory penalties and lawsuits) and voluntary aspects (risk management strategies and strategies to capture potential opportunities) of CSR. An important note is that companies are rated and ranked in

comparison to their *industry peers* from both domestic and international markets, and therefore the rating does not depend on the local CSR situations and rules. The IVA Rating is compiled using company profiles, ratings, scores, and industry reports, and is available from 1999 to 2011.[7] Its coverage comprises the top 1,500 companies of the MSCI World Index (expanding to the full MSCI World Index over the course of the sample period); the top 25 companies of the MSCI Emerging Markets Index; the top 275 companies by market cap of the FTSE 100 and the FTSE 250 (excluding investment trusts); and the ASX 200. For this large sample with global coverage, MSCI constructs a series of 29 ESG scores[8], among which, *Labor Relations*, *Industry Specific Carbon Risk*, and *Environmental Opportunity* receive the highest weights in the global rating, and the weight on traditional corporate governance regulation is below 2%. The detailed composition of the IVA rating is shown in Table 1. Furthermore, we triangulate our results based on the IVA ratings from MSCI with that from the *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social Rating* from RiskMetrics and so capture the environmental and social aspects of CSR, respectively.

[Insert Table 1 about here]

Our main sample covers 91,373 firm-time observations from 59 countries. By means of the Standard Industrial Classification (SIC) and the Kompass sector classification, we classify our sample firms into 17 aggregated industries We also employ other CSR indices provided by various ESG rating agencies with a global scope in order to validate our results. These indices include MSCI's Impact Monitor data, Vigeo's corporate ESG ratings, and Thomson Reuters' Asset4 ratings of which the

[7] The information on which the IVA ratings are based is extracted from the following sources: (a) Corporate documents: annual reports, environmental and social reports, securities filings, websites, and Carbon Disclosure Project responses; (b) Government data: central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc. In particular for European companies, the information is expanded by means of many other information sources; (c) Trade and academic journals included in Factiva and Nexis; and (d) professional organizations and experts: reports from and interviews with trade groups, industry experts, and non-governmental organizations familiar with the companies' operations.

[8] A key ESG issue is defined as an environmental and/or social externality that has the potential to become internalized by the industry or the company through one or more of the following triggers: (a) Pending or proposed regulation; (b) A potential supply constraint;(c) A notable shift in demand; (d) A major strategic response by an established competitor; (e) Growing public awareness or concern. Once up to five key issues have been selected, analysts work with sector team leaders to make any necessary adjustments to the weights in the model. Each key issue typically comprises 10-30% of the total IVA rating. The weights take into account the impact of companies, their supply chains, and their products and the financial implications of these impacts. For each key issue, a wide range of data are collected to address the question: "To what extent is risk management commensurate with risk exposure?"

country coverage and number of observations are shown in the Appendix. In contrast to the MSCI IVA data that focus on engagement (developing strategies to manage its risks and opportunities), the Vigeo ESG data is more CSR compliance-oriented as it applies a check-the-box approach to rate how a firm and the country in which it operates comply with the conventions, guidelines, and declarations by international organizations such as UN, ILO, and OECD. We also obtain a cross-sectional dataset of country-level sustainability ratings from Vigeo, which rates each country based on the laws and regulations that fulfill the country's (1) environmental responsibility, (2) social responsibility and solidarity, and (3) institutional responsibility, which is a country's legal and regulatory framework in relation to sustainability. These three country-level domains echo the firm-level "E", "S" and "G" criteria.[9]

Methodology

As the IVA ratings measuring a company's ESG performance are integers ranging from 0 to 6 and are not normally distributed, we use the nonparametric Wilconxon-Mann-Whitney test in a univariate analysis which compares the median ESG values across different legal origins, and between capitalist and socialist countries. We will subsequently apply reduced-form regressions to analyze the impact of legal origin and political institutions on CSR. Given that some of our independent variables are time-invariant (e.g., legal origins) and that we would like to draw inferences on the population, random-effect models are used in this panel setting. Our estimations are made by OLS, random-effects generalized least squares (GLS), and random-effects ordered probit models. The latter are estimated by means of maximum likelihood and consider the discrete, ordinal nature of the ratings and the rating changes in a panel data setting (as in e.g., Alsakka and Gwilym, 2010). The general specification can be expressed as:

$$y_{it}^{*} = \alpha_t + \beta_1' Legal_c + \beta_2' PoliSocio_{ct} + \beta_3' X_{it} + \gamma' Z_{ct} + \delta_{it} \qquad (1)$$

Where *Legal* is a vector of different types of civil law origins, *Political* is a vector of political institutions and social preferences variables which, in our sample, are mostly time-variant, X_{it} is the vector of firm-level financial and governance variables, while Z_{ct} is a vector of country-level control variables. Except for legal origins, all the other variables are time-variant in nature. The subscript *i*

[9] The sovereign ratings are based on 120 ESG risk and performance indicators in the aforementioned three domains. Countries are graded on a scale of 100 on their commitment and performance in these indicators such as ratification of the Kyoto convention, the Vienna convention, the Stockholm convention, CO2 emissions per head, Gini index, etc.

refers to the individual firm, *t* to the time, and *c* to the country. y_{it}^{*} is the firm-level ESG rating. In the case of ordered probit models, y_{it}^{*} is an unobserved latent variable linked to the observed ordinal response categories y_{it}:

$$y_{it} = \begin{bmatrix} 0 & if\ y_{it}^{*} \le \mu_1 \\ 1 & if\ \mu_1 < y_{it}^{*} \le \mu_2 \\ 2 & if\ \mu_2 < y_{it}^{*} \le \mu_3 \\ 3 & if\ \mu_3 < y_{it}^{*} \le \mu_4 \\ 4 & if\ \mu_4 < y_{it}^{*} \le \mu_5 \\ 5 & if\ \mu_5 < y_{it}^{*} \le \mu_6 \\ 6 & if\ \mu_6 < y_{it}^{*} \end{bmatrix} \qquad (2)$$

The $\mu's$ represent thresholds to be estimated (along with the β and γ coefficients) using maximum likelihood estimation, subject to the constraint that $\mu_1 < \mu_2 < \mu_3 < \mu_4 < \mu_5 < \mu_6$.

Moreover, we explore a few quasi-natural experiments on some exogenous changes of a firm's legal regime and CSR demand using OLS estimation while controlling for country-, industry-, and year-fixed effects so as to further establish causality. Finally, we apply an IV approach for the effect of CSR on Tobin's Q and estimate two-stage least square (2SLS) and fixed effects models (controlling for firm fixed effects). We cluster the standard errors at the country level. In unreported regressions, we cluster the standard errors also at the firm level which yields similar (and stronger) results.

The Variables

In equation (1), the dependent variables are various CSR measures that capture the different dimensions of firms' engagement and compliance to ESG issues: the Overall IVA Rating, the EcoValue Rating (from RiskMetrics) and the Social Rating (from RiskMetrics), all are converted to ordered integer scores ranging from 0 to 6. As explanatory variables, we include:

a. Legal Origins

The Legal Origin refers to the type of law that applies in the country where the firm is headquartered: English common law, French/German/Scandinavian civil law systems, and Socialist origins (both current and former socialist countries) (LLSV, 1998).

b. Social Preferences

To capture the direct preferences for CSR by citizens around the world, we utilize data from World Value Survey (WVS) on citizens' confidence, which consists of the fraction of surveyees who

answered "A great deal" or "Quite a lot" (relative to "Not very much" and "None at all") to the following question: How much confidence do you have in major companies to take social responsibility. We pick up this item as one of our "preference" variables and term it as Citizenry Preferences because there is ample evidence that confidence is strongly related to trust in society, which is further associated with the preferences of citizens on how society should be organized (e.g., Guiso, Sapienza, and Zingales, 2004, 2008).

To capture the indirect social preferences that are aggregated by political institutions, we define the variable Democratic Participation. As Glaeser *et al.* (2004) argue that only aspects that directly relate to electoral rules are a good proxy for "institutions", we mainly focus on indices that measure democratic participation and rules that define voting and elections: the Vanhanen Democratic Participation index and the Polity IV Democracy index are often used in political economy.

Political Executive Constraints proxies for the constraints to potential expropriation by the political elites as suggested by Glaeser *et al.* (2004): "[Political executive constraints] is the only measure that is clearly not a consequence of dictatorial choices, and […] can at least loosely be thought of as relating to constraints to government" (p. 282). We use the same index, developed by Polity IV.

Our third political variable is Corruption Control which measures the extent to which politicians are constrained from pursuing their self-interest (through corruption), and to some extent also captures constraints. Apparently, there are more political variables that stand for aggregate social (stakeholder) preferences, but we stick to the above three because they are most closely connected to North's (1980) conception of institutions as "constraints" and thus better reflect aggregate preferences. In the robustness section, we will deal with alternative specifications.

To test the division view, we use a country's Regulatory Quality to proxy for the government's engagement and effectiveness in taking society responsibility and dealing with market externalities. This variable captures the government's ability to formulate and implement sound policies and regulations that permit and promote private sector development.

c. Corporate Governance and Financial Variables

We also control for corporate governance structures such as the nature and dispersion of ownership and board structures, as they matter for the balance of power between shareholders and other stakeholders.

Dispersed Ownership is directly influenced by legal origins and political institutions (Aslan and Kumar, 2012; Roe, 2003, 2006), but may at the same time affect the (need for) protection of stakeholder rights. The literature highlights both the negative consequences of dispersed ownership due to managerial agency problems, and its positive value implication due to the alleviation of the dominant shareholder problem (as the dominant shareholder can expropriate the rights of minority shareholders). Ownership dispersion also captures the extent to which conflicts can arise between shareholders and stakeholders regarding CSR expenditures (Barnea and Rubin, 2010). We use the Orbis' Independence Indicator as a proxy for ownership dispersion/concentration.

Ultimate Owner (UO) Types include (i) the state; (ii) wealthy individuals or families; (iii) foundations or research institutes (e.g. universities); (iv) pension funds; (v) venture capital and private equity; (vi) banks, insurance companies and other financial institutions (financial consortia); and (vii) corporations (Claessens, Djankov, and Lang 2000). The inclusion of these ultimate owner type dummies is motivated by the literature that the identity of large shareholders can significantly influence corporate policies, including CSR (Cronqvist and Fahlenbrach, 2009).

The board of directors' tier structure (or Supervisory Board) refers to the adoption of a one-tier board system that combines the management and supervisory directors into one body, or a two-tier system that separates them. Under the two-tier structure, the supervisory board usually consists of employees and outsiders, which fosters codetermination by shareholders and other stakeholders. In about three quarters of the countries, the one-tier board has been legally or voluntarily adopted. Elsewhere, notably in Germany, the Netherlands, Austria and Scandinavia, the two-tier structure prevails. We include a firm-level dummy variable capturing the existence of a supervisory board.

We also include a set of control variables such as firm-level financial constraints to investigate whether firms are "doing good by doing well" (Hong, Kubik, and Scheinkman, 2012). Our variables capture different aspects of financial constraints: (1) short-term investment to cash flow sensitivity (Financial Constraints) (Fazzari, Hubbard, and Petersen, 1988), (2) Interest Coverage, and (3) Financial Slack, measured by the current ratio. We also include financial performance: return on assets (ROA).

d. Country-level Controls

We control in equation (1) for a country's level of economic development: the (logarithm of the) GDP per capita and a globalization index. GDP per capita captures income and wealth effects, as people in richer countries are more likely to care about sustainability whereas those in poor countries

merely worry about daily economic survival. The globalization index is expected to capture the spillover effect of CSR standards across countries, as corporations in more globalized countries are under higher pressure to comply with international conventions and principles that outline the norms for acceptable corporate social conduct. Detailed definitions and sources of all our variables are summarized in the Appendix.

Results

Descriptive Results

We first examine the relation between firm-level CSR (the CSR ratings from MSCI IVA) and country-level sustainability (the Vigeo sustainable country ratings). The average correlation coefficient between these two sets of indices is above 25% and statistically significant at the 99% confidence level. The correlations between the aggregated IVA rating and the overall country rating, the environmental responsibility country rating, the institutional responsibility country rating, and the social responsibility and solidarity country rating amount to 29%, 21%, 28% and 26%, respectively. The correlations between the RiskMetrics Ecovalue rating and the aforementioned country ratings are 23%, 24%, 21% and 20%, respectively. The correlations between the RiskMetrics Social rating and those country ratings are 26%, 20%, 25% and 24%. Similarly high correlations are found between the country-level sustainability rating and other firm-level CSR ratings. The correlation between Vigeo's 'human resource concern' and 'country institutional responsibility' is as high as 47 percent. Given that these datasets are from different sources and are constructed by means of different rating metrics, the positive correlations are remarkable. It confirms the aforementioned normative argument that CSR is closely related to societal sustainability, and indicates that the fact that firms address social/environmental/governance issues (even through voluntary engagement rather than pure compliance to regulation) is not mutually exclusive to governmental efforts to achieve a sustainable society.

We compare the mean ESG ratings for the countries belonging to different legal origins in Table 2. In addition to the overall ESG rating (Overall IVA Rating) and two general ratings on environmental and social policies (EcoValue21 Rating and Social Rating), we also show the various components of the CSR subcategories representing benefits for different types of stakeholders.[10] The comparisons of

[10] For example, the CSR benefits for shareholders and creditors can be inferred from *Strategic Governance*, *Strategic*

the means of the CSR indices across legal origins in Table 2 show that the English common law system is inferior to the civil law systems in terms of fostering good corporate ESG performance. Firms from the Scandinavian and German legal origins outperform those from the English common law system, especially in terms of environmental issues, as indicated by the scores in EcoValue21 Rating and the subcategories Environment, Environmental Management Capacity, Environmental Opportunity, Industry Specific Carbon Risk, Environmental strategy, Environmental Management Systems, Environmental Accounting Reporting, Certification (e.g., ISO14000), etc. In social- and labor-related issues, firms from the French legal origins outperform those from the English and German legal origins, as can be derived from the scores of the Social Rating and the subcategories Human Capital, Stakeholder Capital, Employee Motivation and Development, Labor Relations, Health Safety, Customer Stakeholder Partnerships, Human Rights Child and Forced Labor, etc. The English common law system is only superior to civil law systems in the domain of the firm's interactions with local communities and traditional corporate governance concerns. Companies from the Socialist legal origin perform the worst across the board.

[Insert Tables 2 about here]

We further compare the differences across legal origins for various aspects of CSR using a non-parametric test (Wilcoxon-Man-Whitney test). Table 3 shows that the differences in ESG performance (overall and by component) are highly statistically significant across legal families, and that civil law countries consistently outperform common law countries in all ESG subfields. Within the civil law countries, we find that firms of countries with German legal origin outperform their French counterparts in terms of ecological and environmental policy (EcoValue 21 rating, Industry Specific Carbon Risk, and Environmental Opportunity), but that the French legal origin firms outperform German legal origin companies in social issues and labor relations. Capitalist economies attach more attention to ESG relative to the current and former socialist countries (Russia, China, and some Eastern European countries).

[Insert Table 3 about Here]

Capability & Adaptability, *Traditional Governance Concerns*, etc. The benefits for employees – the recognition of human capital - are manifested in *Employee Motivation Development, Labor Relations, Health & Safety*, etc. The benefits for customers can be derived from the categories *Customer Stakeholder Partnerships, Intellectual Capital & Product Development, Product Safety*, etc. The environmental issues – categories *Environmental Management* capacity through *(Environmental) Performance* – are crucial to all types of stakeholders.

GLS Estimations

In Table 4 we present the results from both random-effect GLS models and pooled OLS explaining the variation in the different CSR ratings: the Overall IVA Rating, the RiskMetrics EcoValue (environmental) Rating, and the RiskMetrics Social Rating (all are ordinal integer scores ranging from 0 to 6). The English common law origin is our benchmark and is therefore omitted from the models.[11] Models (1)—(3) show the results from regressing the three CSR ratings on legal origin dummies, Citizenry Preference, Regulatory Quality, together with other control variables. In Models (4)—(6), we further expand Models (1)—(3) by including the political institutions variables (Democratic Participation and Executive Constraints) as alternative measures of aggregate social preferences, the types of ultimate owner (UO) (whereby the case in which industrial companies are the ultimate owners is the benchmark), and industry fixed effects.[12] Models (7)—(9) have the same specification as Models (4)—(6), except that they are estimated by means of a pooled OLS.

Several important observations can be made: First, the coefficients on the French, German, and Scandinavian civil law origins from models (1) to (9) are mostly positive and statistically significant, regardless what estimation methods are used, which implies that firms under civil law systems do better in terms of ESG adoption/performance than those under the English common law system. The economic effects are substantial: without controlling for the type of ultimate owner, firms in civil law countries on average outperform those in common law countries by over one grade (on a scale of 7) in different ESG ratings (Models 1-3). Controlling for the type of ultimate owner, such outperformance is amplified to over 3 grades on the ESG ratings with random-effect GLS estimations (Models 4-6), and to about 1.5 grades on the ESG ratings with pooled OLS estimations (Models 7-9). According to LLSV (1998) and La Porta et al. (1999), ownership concentration is more prevalent in civil countries, thus the effects of civil laws are expected to be stronger in firms with controlling shareholders. Therefore, restricting the sample to firms with controlling shareholders leads to both economically and statistically stronger effects of the civil law dummies. Similar economic magnitudes

[11] Given the consistent ESG underperformance of firms in (current or former) socialist countries, which are still under an autocratic or dictatorial regime, we exclude these countries from our sample, and focus on the differences between common law systems and civil law systems (and their subsystems).

[12] In Model (5), we further exclude *Financial Constraints* measured as the sensitivity of short-term investment to cash flow, considering Chen & Chen's (2012) criticism on this measure. We also exclude *Financial Slack* (current ratio) – a measure of liquidity and the ability to meet creditors' demand – which is sensitive to the type of ultimate owner. Given that not all firms have dominant shareholders as the ultimate owner, the number of observations declines (if a company does not have ultimate owner, the observations for the UO variable are treated as missing values).

are found for French and German legal origins; in the environmental rating, firms from German civil law origin even outperform those from common law origins by 4 grades on average—more than half of the whole scale—when estimated using GLS. This stands in marked contrast with the traditional legal origin theory in the law and finance literature that the common-law countries generally have the strongest, and French civil-law countries the weakest investor protection, financial development, and economic efficiency (LLSV, 1998; La Porta *et al.*, 2008). Our findings echo the legal origin view of CSR, but also reveal something different from the traditional legal origin theory: while common law focuses more on the legal protection of shareholders which is the premise of stronger financial development, it fails to sufficiently bolster stakeholder rights compared to civil laws.

Second, in Models (1)-(3), none of the coefficients on Citizenry Preferences and Regulatory Quality are statistically significant. In Models (4)-(6) when political institutions variables and more controls are included, the coefficients on Citizenry Preferences become positive and significant, while those on Regulatory Quality are largely insignificant. For the "preference" view to hold, we expect and a positive association between citizenry preference, democracy, and CSR. We find that the preference view is not fully supported because, while the Citizenry Preferences are statistically significant, the coefficients on Democratic Participation have the inverse sign (they are all negative and significant), while those on Executive Constraints are insignificant.[13] For the "division" view to hold, we expect a negative association between governmental regulatory quality and CSR, but we find that this is not the case. The results of Models (7)-(9) where the same specifications are estimated using pooled OLS (a method that is usually preferred with cross-country time-invariant factors as key explanatory variables), also exhibit little consistent support for the division and preference views because Citizenry Preferences, Democratic Participation and Executive Constraints are all insignificant). Only Regulatory Quality is (marginally) significant and positive.

One may be concerned that the negative coefficients on participation indices in Models (4)-(6) seem counter-intuitive. In unreported regressions, we try several other democracy indices that measure similar aspects of political participation and democratic rule: the Democracy Ranking, the Economist Intelligence Unit's (EIU) Democracy Index (both the overall EIU democracy index in 2006, and the EIU index of electoral rules and political participation over different years), the Free House Political Rights Index, the Unified Democracy Scores, and the Polyarchy Democracy Index 2000. The previous

[13] In unreported regressions where we include all ultimate owner dummies and treat "no ultimate owner" as the base case, the main results on legal origins and political institutions remain unchanged.

results survive with different democracy indices and the coefficients on the democracy indices often remain negative. This does not mean that we interpret the negative coefficient on democratic participation as unaccountability of the democratic process with regard to ESG issues, but rather as inefficiencies of the democratic participation process in dealing with changes in ESG preferences: due to difficulty in consensus building, democratic participation in political decision making may be a burden for aggregating social preferences to pursue more CSR initiatives, especially for those often beyond laws and regulations. This is also in line with Glaeser *et al.* (2004) in that democratic institutions do not cause growth and create wealth; rather, they are the *consequences* of economic growth and wealth creation. In addition, a country's globalization (Globalization Index) mostly has a positive impact on CSR, but is not consistently correlated with CSR, which echoes the findings by Ioannis and Serafeim (2012) that trade openness is positively but not persistently related to CSR. As the sign of the coefficient on GDP per capita is rather ambiguous, the income level is not a key determinant of CSR.

For the firm-level variables, Table 4 also shows that ownership structure and board structure do not seem to matter much for CSR, as the coefficients on Dispersed ownership and the Supervisory board dummy are mostly insignificant. For forms with higher ownership concentration, the type of controlling shareholders—the state, individuals or families, financial institutions, pension funds, and private equity—mostly do not significantly affect CSR performance. Exceptions are private equity-controlled firms (UO – VC/PE) that on average underperform in terms of CSR ratings (Models (4)-(9)), and foundations-controlled firms that outperform (Models (4)-(6)). The former may be due to the fact that private equity ownership usually has short-term investment horizon and does not engage in long-term strategic plans such as CSR, and the latter can be easily explained by the social missions of charity foundations. Furthermore, most of the financial performance and constraints variables (not reported in this table to preserve space, but will be shown in later results) are statistically insignificant, indicating that they are not the primary source of CSR. This finding thus fails to support the 'doing good by doing well' hypothesis, in that more profitable and less financially constrained firms are able to assume more social responsibilities (Hong *et al.*, 2012). Overall, we conclude that legal origin is the most significant and persistent predictor of CSR adoption and performance in our cross-country setting.

[Insert Table 4 about Here]

One may be concerned about the weighting of countries by the number of their firm-years in the data when using random effect models. We therefore construct a new sample consisting of the ten

largest companies in terms of market capitalization in each country (countries with fewer than ten companies are dropped).[14] In unreported regressions, we conduct OLS tests on this equally-weighted sample with the same variables, and the above main results survive.

Random-Effect Ordered Probit Estimations

Since we use ordinal dependent variables, we re-estimate the above models by means of random-effects ordered probit models[15]. The first three columns (Models (1)-(3)) in Table 5 report the results when we only include legal origins in the models with Overall IVA Rating, EcoValue Rating and Social Rating as the dependent variables, respectively. Similar to the GLS results of Tables 4, the coefficients on the three civil law origins are mostly positive and statistically significant at the 99% confidence level (with as only exceptions, the French origin in environmental performance and the German origin in social performance). As before, the economic significance of the Scandinavian origin remains the highest across the civil law origins: Scandinavian origin increases the ESG rating by over 2 grades relative to the English origin. Models (4)–(6) of Table 5 show the results of further including political institutions (Corruption Control, Executive Constraints, and Regulatory Quality) as well as other country- and firm-level covariates. Again, our previous results are upheld: legal origin (civil law) dummies are consistently positive and significant, the sign on Corruption Control and Executive Constraints is negative and significant, and that on Regulatory Quality is mostly positive but not consistent. These findings do not support either the division view or the preference view. Adding Citizenry Preference as an additional variable to capture social preferences to Models (7)-(9), does not change the results of the previous models. The coefficient on Citizenry Preference itself is positive for the overall IVA rating (Model 7) and Social rating (Model 9), but negative for the EcoValue rating (Model 8), and these signs are difficult to be reconciled with that of the democratic participation

[14] This leaves us with 32 countries and 320 observations if we run simple OLS, or 8,916 observations if we run random effects or pooled OLS.

[15] Given the complex nature of our non-linear estimation models, we cannot add in all the possible explanatory variables as they sometimes may not result in convergent estimations, and need to make some choices. We use *Executive Constraints*—suggested by Glaeser *et al.* (2004) and Acemoglu and Johnson (2005)—as our key proxy for democratic participation, as using the Vahanen democratic participation index often results in non-convergence in estimation. We do not include the ultimate owner type in the estimation as these dummy variables account for only a small portion of the sample and including them will lead to non-convergence in the estimation. We also exclude the globalization index from all models, and include *Corruption Control* in Model (4) to replace *Executive Constraints*, for the same reason. In addition, the firm-level *Supervisory Board* dummy is replaced by a country-level *Board Tier Structure* variable (see definition in Appendix) for convergent estimations.

variable (Executive Constraints). This indicates that aggregate social preference is not a consistent predictor for CSR, and we hence do not find support the "preference" view.

[Insert Table 5 about Here]

Estimations with Alternative CSR Data

One possible concern could be that our empirical results are driven by the peculiarity of our CSR data. The similarity in the results from the Overall IVA Rating data and from RiskMetrics data (EcoValue21 Rating and Social Rating) could be due to the fact that they use similar rating methodologies.[16] To address this issue, we conduct our tests on CSR scores from other databases with global coverage: (i) the ESG Impact Monitor,[17] (ii) Vigeo's corporate ESG (panel) data (three representative subindices which measure corporate compliance rather than engagement related to corporate governance, human resources, and consumer & supplier relations),[18] and (iii) Thomson Reuters' Asset4 (panel) data.[19] We use the Vanhanen index and the Polity IV executive constraints index to capture the impact of democratic participation, and we also in- and exclude the variable Corruption Control as a robustness check. Table 6 shows that that our previous results largely survive with different ESG measures from the above alternative CSR databases: firms with civil law origins outperform those with common law origin in terms of CSR. The exception is in Model (3) but the reverse (negative) signs on legal origins are actually not that unexpected because the Vigeo corporate governance dependent variable measures the traditional governance concerns from an agency perspective. The fact that firms with common law origins do better in terms of shareholder protection is indeed consistent with the traditional law and finance view. In terms of compliance to human resources rules, firms under civil law do better than those under common law (Model (4) of Table 6), but in the domain of consumer and supplier concerns, only firms under Scandinavian legal origin

[16] RiskMetrics/ISS was acquired by MSCI in 2010, although their original rating methodologies have been maintained.

[17] Also developed by MSCI but with emphasis on the 'impact' of companies' ESG performance (especially on the significance of a company's social and environmental impact and its ability to manage that impact). The database captures how well a company adheres to international norms and principles such as the *UN Global Compact* and *ILO Core Conventions* and assesses corporate strategies, disclosure and performance with respect to these norms and principles.

[18] ESG performance focuses on six domains: (1) environment, (2) human rights, (3) human resources, (4) business behavior (customers & suppliers), (5) community involvement, and (6) corporate governance.

[19] ESG information on 4,300+ global companies based on 250+ key performance indicators and 750+ individual data points covering every aspect of sustainability reporting. The sample includes MSCI World, MSCI Europe, STOXX 600, NASDAQ 100, Russell 1000, S&P 500, FTSE 100, ASX 300 and MSCI Emerging Market. On average, 10 years (from 2002) of history is available for most companies.

outperform (Model (5)). In addition, the sign of the coefficient on the democratic participation indices is still persistently either negative or insignificant.

[Insert Table 6 about here]

Robustness

Investor protection and cultures

We also investigate whether the impact of legal origins on CSR occurs through corporate governance rules and cultures. Presumably, legal origins can have a direct impact on CSR through the shareholder-stakeholder tradeoff (embedded in the spirit of law), or an indirect one through rules and regulations related to investor protection and corporate governance. Therefore, we include in our models the widely used anti-director rights index (ADRI).[20] In addition, as cultures could have affected both legal origins and political institutions, and have an impact on CSR performance, we also control for culture by introducing the Hofstede five cultural dimensions at the country level (Hofstede and Hofstede, 2005). These dimensions are: (1) Power Distance, (2) Individualism, (3) Masculinity versus Femininity, (4) Uncertainty Avoidance, and (5) Pragmatism (for definitions see Appendix). We present the tests in Table 7: as investor protection and cultures usually endogenously affect economic outcomes (Stulz and Williamson, 2003; Sapienza, Zingales, and Guiso, 2006; Tabellini, 2010), we exclude the two economic development variables, Ln(GDP per capita) and the Globalization Index. In addition, to address the concern that ESG ratings are given relative to industry benchmarks and thus already take into account of the industry effects, we show results both with and without industry dummies to check robustness of the results. We conclude that the effects of ADRI and the Hofstede cultural variables per se on CSR are not strong or consistent, and that our previous results on legal origins, democratic participation, and political executive constraints, as well as ownership and board structures are maintained when controlling for corporate governance rules and culture.

[Insert Table 7 about here]

[20] Both the original LLSV (1998) ADRI and Spamann's (2010) revised ADRI consist of six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; and (6) percentage of share capital to call an extraordinary shareholder meeting. Replacing ADRI with other widely-used investor protection indices such as the anti-self-dealing index in Djankov et al. (2008) and the one-share one-vote index (LLSV, 1998; Spamann, 2010) yield very similar results.

Country-level Sustainability

We relate the Vigeo sustainable country ratings (175 countries worldwide) to the country-level variables used in the above analyses: legal origins, political institutions, economic development variables, and ADRI. Citizenry preference is not included in the regressions (so we only rely on democratic participation as a proxy for aggregate social preferences), because it would reduce our cross-section sample size to 22. Still, in unreported regressions we find that including citizenry preference does not make the results much different. The findings in Table 8 suggest that: (1) Legal origins strongly explain the variation in countries' sustainability measures—the overall CSR score, specific ratings for the environment, social issues and solidarity, and country-level governance ("institutional responsibility"); and their effects are more persistent than the impact of shareholder-orientation (ADRI) and economic development; (2) The effects of political institutions are not significant, neither over long nor short time spans. Thus, our country-level results are largely consistent with the firm-level results.

[Insert Table 8 about Here]

Evidence from Quasi-Natural Experiments

One major concern on our above cross-country firm-level analysis is that unobservable country-level alternative factors can drive spurious correlations between legal origins and CSR, and make causal identification difficult. This concern can be largely eliminated if we are able to control for country fixed effects that can take into account all time-invariant country-level factors, which, however, will also omit our key variables: legal origins. In order to further establish causality from legal origin to CSR while controlling for country fixed effects, we exploit several quasi-natural experiments that either changed a company's legal regime or shifted firms to new equilibria. We then estimate models using a differences-in-difference (DiD) approach. In general, a DiD estimation can be specified as:

$$CSR_{ict} = A_c + B_t + C_s + \beta X_{ict} + \gamma I_{lt} + \epsilon_{ict} \qquad (3)$$

where A_c, B_t, and C_s are fixed effects for countries, years, and sectors (industries), respectively. X_{ict} are relevant individual controls and ϵ_{ict} is an error term. I_{lt} is the interaction between legal origin (civil law) and the year dummy. The estimated impact of legal origin (civil law in year t) is then the

OLS estimate $\hat{\gamma}$. Standard errors are clustered across firms and time to account for serial and cross-sectional correlations.

Cross-Listing on Stock Exchanges

Ideally, one would find an exogenous shock to the change of a country's legal origin to study the causal effects of legal origin on firm-level CSR. However, such truly exogenous shock did not occur during our sample periods. Nevertheless, large multinational corporations do frequently cross-list in other countries, such that they may become subject to another legal regime (imposed by the listing rules). We therefore use cross-listing on different stock exchanges in different legal regimes (common law versus civil law) as our first quasi-experimental setting to explore the effects of cross-legal-regime listing on the change of firm-level CSR. To do so, we use the CSR sample with ASSET4 ESG ratings for this quasi-experimental test, because ASSET4 data focus on subsidiary-level ESG ratings, and cross-listing and scandals mainly have an impact at the subsidiary-level. The ESG ratings from ASSET4 are on a scale from 0 to 100.

Table 9 reports the results on listings across different legal regimes, with each column representing one specification. The dependent variables are the overall CSR rating, environmental rating, and social rating from the ASSET4 sample, and the independent variables include the ones we previously controlled for and several additional variables thanks to the availability of data on Datastream (which embeds ASSET4),[21] as well as the dummy variable indicating whether the firm had a cross-listing history. Importantly, with this setting we are able to simultaneously control for industry, year, and *country* fixed effects, which largely rule out alternative country-level channels. Panel A reports the results for cross-listing from the common law to the French civil law regime, with dependent variables being CSR ratings in the year of the cross-listing in Models (1)-(3), and CSR ratings one year after the cross-listing in Models (4)-(6). The DiD estimator is the coefficient on the interaction term between the cross-listing dummy and the dummy capturing the year of the cross-listing ("Cross-listing × year"). Consistent with previous results, the coefficients on most interaction terms in Panel A are highly significant and positive, and the economic magnitudes are again non-trivial: the average CSR scores increased by more than 4 grades upon cross-listing, and still increased by more than 2 grades one year

[21] These additional variables include Tobin's Q (market-to-book ratio of assets), cash flow rights of the largest owner of the firm and its square, the logarithm of total assets, and the logarithm of firm age (years since incorporation).

after. These results indicate that upon and after being cross-listed from the common law regime to the French civil law regime, the firm substantially upgraded its CSR performance.

One may be concerned that the above statistical significance is driven by alternative explanations such as the possibility that CSR changes are due to international corporate expansion or that investors (or stakeholders) are sensitive to the information salience of the cross-listing, regardless which legal regime the firm cross-listed into. We address this concern by showing in Panel B the results for cross-listing from the French civil law regime to the common law regime, with as dependent variables the CSR ratings in the year of cross-listing in Models (7)-(9). Interestingly, we find statistical significance for neither the interaction terms nor the main effects of cross-listing. These one-directional results give us confidence that the causality goes indeed from the legal origin to firm CSR.

[Insert Table 9 about Here]

Another three quasi-experiments we conducted are related to unexpected shocks of corporate scandals or natural disasters, which moved firms out of equilibrium and magnified the costs and benefits of different legal regimes. These shocks include the 2008 Chinese milk scandal, the 2004 Asian earthquake and tsunami, and the 2010 Deepwater Horizon oil spill. All these shocks significantly shifted demands for CSR in certain industries, thus offer us ideal settings to investigate which legal regime house companies that shifted most.

Chinese Milk Scandal and Product Responsibility

The 2008 Chinese milk scandal was a food safety incident in China, involving milk and infant formulae, and other food materials and components, adulterated with melamine. By November 2008, China reported an estimated 300,000 victims, with six infants dying from kidney stones and other kidney damage, and an estimated 54,000 babies were hospitalized. Government inspections later revealed that the problem existed in products from 22 companies, including market leaders such as Mengniu. The World Health Organization referred to the incident as one of the largest food safety events it had had to deal with in recent years. The issue raised severe concerns about food safety, not only in China but all over the world, as many food manufacturing and processing companies import food materials and components from China, or had foreign operations in China. The European Union, European Commission, and the United States Food and Drug Administration all tightened up food safety checks and regulations.

The Chinese milk scandal raised worldwide awareness of companies in food-related industries on their product safety and responsibility. We therefore utilize the "product responsibility" rating offered by ASSET4 and compared companies on their reaction -across legal regimes- in terms of upgrading their own product safety, measured by their product responsibility scores. We exclude Chinese firms from the sample because we want to avoid the (expectedly strong) local impact on our international results. Panel A of Table 10 shows the results of all previously controlled variables, and the DiD estimator is the coefficient on "Civil law × 2009". Again, the coefficient is positive and statistical significant with a non-trivial economic magnitude, indicating that food-related companies in civil law countries upgraded their product responsibility performance by more than 7 grades on average (on a scale of 100) in relation to firms in common law countries.

Indian Ocean Earthquake and Corporate Donations

The 2004 Indian Ocean earthquake and tsunami, was an undersea megathrust earthquake that occurred on Sunday, 26 December 2004, and was one of the deadliest natural disasters in recorded history. The earthquake was caused when the Indian Plate was subducted by the Burma Plate and triggered a series of devastating tsunamis along the coasts of most landmasses bordering the Indian Ocean, killing over 230,000 people in fourteen countries, and inundating many coastal communities. The plight of the affected people and countries prompted a worldwide humanitarian response. In all, the worldwide community donated more than $14 billion in humanitarian aid, while some funds are from national governments, most others are corporate donations.

Corporations constantly donate money in normal times, but the earthquake and tsunami magnified the amount of corporate donations. We therefore compare the overall donations made in 2005—right after the disaster—by corporations in our world sample. Panel B of Table 10 shows the results from this natural experiment with the same control variables as before, and the coefficient on "Civil law × 2005" is the DiD estimator. Again, this coefficient is positive and statistically significant, indicating that on average firms in civil law countries donated more money that those in common law countries right after the Asian earthquake disaster, which further supports our conjectures on the causation between legal origin and CSR, and on the preponderance of civil laws in relation to common law in fostering a corporate stakeholder focus.

Deepwater Horizon Oil Spill and Corporate Environmental Concerns

The *Deepwater Horizon* oil spill, also known as the BP oil disaster, began on 20 April 2010 in Gulf of Mexico on the BP-operated Macondo Prospect. It is considered the largest accidental marine oil spill in the history of the petroleum industry. Following the explosion and sinking of the Deepwater Horizon oil rig, a sea-floor oil gusher flowed for 87 days, with several failed efforts to contain the flow. The spill had a severe environmental impact. The US Government estimated the total discharge at 4.9 million barrels (210 million US gal; 780,000 m^3), which directly polluted 68,000 square miles (180,000 km^2) of ocean and had a 'devastating' effect on marine life in the Gulf and led to the gulf ecosystem being "in crisis". Between May and June 2010, the spill waters contained 40 times more Polycyclic aromatic hydrocarbons (PAH)'s—which often include carcinogens and chemicals that pose various health risks to humans and marine life—than before the spill.

The Deepwater Horizon oil spill was an environmental shock to all energy-related industries regarding the environmental consequences of their production and operations. We therefore compare, across legal regimes, corporations' upgrading of their environmental concerns after the oil spill, measured by the change of the overall environmental score as the dependent variable. Panel C of Table 10 shows the results in a similar way in in Panels A and B, except that the DiD estimator is the coefficient of "Civil law × 2010". This coefficient is still positive and statistically significant, indicating that energy-related firms in civil law countries on average upgraded their environmental performance by more than 7 grades in relation to those in common law countries. This result once again supports our conjecture that legal origin matters, and that civil law provides more fertile grounds for CSR.

[Insert Table 10 about Here]

As a further robustness check of our quasi-experiment results, we conducted several placebo tests. For the Chinese milk scandal shock, we interact the civil law dummy with years 2002-2007 (years before the scandal) separately and run regressions on the same specification, and find none of these interactions are statistically significant. Therefore, the significance of "Civil law × 2009" is more likely driven by the scandal.

For the Asian tsunami and earthquake experiment, we conduct Placebo tests in the period of 2002 to 2007, with year 2002 and year 2007 being unaffected by major natural disasters, and years 2003-2006 being strongly affected by several major natural disasters. [22]Again, the Placebo test further

[22] Natural disasters such as earthquakes happened frequently throughout history around the world. We restrict our placebo tests in years 2002-2007 for the ease of comparison, because after 2007, there are years with several global disasters and years without global disasters. Years 2003-2006 are treated as "disaster years" because there are large

reinforce our "causality" story: the interactions with "unaffected years" (2002 and 2007) are not significant, while the interactions with "affected years" (2003-2006) are positive and significant, indicating that civil law firms increased more dramatically than common law firms during disaster time.

The placebo test on Deepwater Horizon oil spill and environmental upgrading in energy-related industry gives similar results: the coefficient on the interaction between Civil Law and Year 2010 is positive and significant, while the coefficients on interactions with other years throughout 2002 to 20012 are not, except for the interaction with year 2005, which is likely due to other environmental issues affecting energy-related industries in the same period. Therefore, the significance of "Civil law × 2010" is more likely driven by the environmental disaster (oil spill) shock. To preserve space, the results of these placebo tests are not reported. Overall, they provide further supports to the argument that civil law firms react more strongly in CSR practice than common law firms.

Shareholder Value Implication of CSR

Finally, we consider the implications of CSR on shareholder value, which has not yet been explored within a cross-country setting in the extant "doing well by doing good" literature. To do so, we first investigate the direct effect of CSR on shareholder value. Second, we investigate the moderating effect of CSR on the negative association between agency problems and shareholder value.

For the direct effect of CSR on shareholder value, the typical endogeneity issue between doing well (shareholder value) and doing good (CSR) emerges: CSR can influence firm value ("doing well by doing good"), but firm value can also reversely influence CSR adoption ("doing good by doing well"). Therefore, we apply an instrumental variable approach to address this issue by using instruments for firm-level CSR and conduct a two-stage least square estimation. The IV that we use is the political orientation of the government—left, right, or center—the data that is assembled from the Database of Political Institutions (DPI) and varies over time, with "Left" coded as 3, "Center" as 2, and "Right" as 1. First, there is evidence that the political color of the government or ruling parties are directly

earthquakes happened in these years: On Dec. 26, 2003, a 6.6 earthquake flattens the historic city of Bam in southeastern Iran, and some 26,000 people are killed. On Dec. 26, 2004, a 9.1 earthquake off western Indonesia triggers a tsunami in the Indian Ocean, killing 230,000 people in a dozen countries. On Oct. 8, 2005, a 7.6 earthquake kills about 80,000 people in northwestern Pakistan and Kashmir.

related to firms' CSR performance (Hong and Kostovetsky, 2012; Di Giuli and Kostovetsky, 2014). In particular, left-wing parties that are in power are more likely to foster pro-social corporate policies in relation to more right-wing parties. Second, country-level governments' political orientation is not likely to directly affect firm-level market valuation, as they mostly reflect voters' political preferences *in a country*, rather than managerial concerns to maximize shareholder value *in a firm*. Even one may argue that political orientation affects firm value through policies, such influence should mainly take place through regulating firms' social behavior (i.e., through CSR), rather than through other channels. Even if one still believes that political orientation of the government affects CSR through other firm-level channels, they should be mostly captured by our firm fixed effects which absorb unobservable time-invariant characteristics at the firm-level. An important note is that because both our endogenous variables and IV are time-variant, we are able to control for firm fixed effects in both stages, which largely rules out other potential channels.

We show the second stage results of the 2SLS regressions in Table 11. The dependent variable in the second stage is the winsorized (at 5%) Tobin's Q, defined as either the market-to-book ratio (columns (1)—(6)) of equity or the market-to-book ratio of assets (columns (7)—(12)). The CSR indices—predicted by political orientation of the country's government in the first stage—are the overall *IVA Rating*, *RiskMetrics EcoValue Rating*, and *RiskMetrics Social Rating* from the MSCI IVA sample. In the first stage, our IV is positively and significantly correlated with different CSR indicators, and the Cragg-Donald Wald F-statistics are all much higher than Stock-Yogo weak instrument test critical values, supporting the relevance of our IVs. In the second stage, we document that the coefficients of various CSR measures (predicted from the first stage) are mostly positive and significant in the second stage, even after controlling for firm-fixed effects, which indicates that CSR is significantly related to the maximization of shareholder value. In unreported analysis when we replace the aggregate CSR ratings with those subindices such as *Labor Relations* and *Environmental Opportunities*, very similar results are obtained. These results may imply that financial returns and social responsibility are not necessarily in conflict as in Friedman's (1970) view. In fact, maximizing stakeholder value can be consistent with maximizing the value of shareholders who belong to the broader group of stakeholders.

[Insert Table 11 about Here]

To test the moderating effect of CSR on agency costs, we utilize the rich coverage of corporate governance provisions around the world in the ASSET4 ESG sample, and construct a global

entrenchment index (E-index) as a proxy for agency problems. Our global E-index is constructed following the structure of the original E-index for the US as in Bebchuk et al. (2009). We incorporate the following provisions: (1) a poison pill; (2) a golden parachute; (3) a classified board, (4) other anti-takeover devices, and (5) supermajority requirements for amending charters or bylaws.[23] We conduct our test on a panel dataset of more than 4,700 of the largest public firms from 60 countries in the ASSET4 sample from 2002 to 2013. The dependent variable for all specifications is Tobin's Q, defined as the market-to-book ratio of assets, winsorized at the 5% level. The key explanatory variables are the global E-index, the CSR rating (ASSET4's overall CSR score, environmental score, and social score, respectively), and the interaction between the E-index and CSR (Entrenchment Index × CSR), together with the control variables specified above for Table 11. As shown in Table 12, the Entrenchment Index is significantly and negatively correlated with Q. The interaction terms between CSR and Entrenchment are mostly positively and significantly correlated with Q. In addition, the main effects of CSR are mostly positive. We interpret these results—especially the positive coefficients on the interaction terms between CSR and Entrenchment—as supporting our previous findings in Table 11 in that CSR not only directly leads to higher firm value, but also moderates the negative effects of agency problems.

[Insert Table 12 about Here]

One may be concerned that managerial entrenchment is mainly relevant for firms/countries without major controlling shareholders, as the original test was developed in a US context and hence mostly applies for Anglo-American countries with dissipated ownership structures. In unreported regressions, we also measure the "wedge" between voting rights and cash flow rights of the largest shareholder as another proxy of potential agency problem for firms with controlling shareholders. In these unreported tests, our previous results on legal origins remain, and that the wedge variable is mostly not significantly correlated with CSR.

Conclusion

La Porta *et al.* (2008: 326) claim that "…. legal origins—broadly interpreted as highly persistent systems of social control of economic life—have significant consequences for the legal and regulatory

[23] As a further robustness check of our "global E-index", we create Entrenchment Index 2 by replacing "classified board" in Entrenchment Index 1 by "staggered board".

framework of the society, as well as for economic outcomes." In this paper, we focus on an important economic outcome, namely corporate social responsibility that is argued to contribute to a sustainable society (or 'good society' in the words of Shiller (2012)). We have set out to examine the foundations of CSR and its implication for firm value. We assess CSR using proxies for corporate stakeholder concerns, such as environmental, social, and governance policies which measure both engagement and compliance. In particular, by means of large-scale public and proprietary databases of CSR engagement and compliance to ESG issues, we find that legal origins are the main predictors of cross-country CSR adoption and performance, whereas political institutions such as democratic participation and constraints on government, culture, firm-level corporate governance, and financial performance do not show consistent results. Country-level regressions confirm our firm-level results: legal origins are the most consistent factors that are significantly correlated with sustainability, while other factors are not.

Our results yield a different picture of legal origins than that described by LLSV and numerous other law and finance studies. Whereas LLSV show that the English common law origin is superior in terms of judicial efficiency, protection against state expropriation, accounting standards, financial development, and more active IPO and acquisition markets, we find that the English legal origin fosters CSR performance significantly less than countries under civil law origins. Our results are consistent with those of LLSV in that English legal origin comprises a shareholder-orientation whereas civil law is more stakeholder-oriented which stimulates CSR. We find that companies under the Scandinavian legal origin assume most CSR; companies under the German legal origin outperform in terms of the adoption of environmental policies, while companies under the French legal origin focus on social and labor-related issues. Our results hold for both CSR engagement and CSR compliance, which further suggests that CSR is not merely a corporate strategic action (engagement) to boost financial performance, nor is it simply compliance to the rules. Rather, either compliance or engagement is fundamentally driven by systematic differences in legal regimes across countries. Moreover, civil law countries obtain higher country-level environmental, social, and governance sustainability ratings than common law countries.

None of our empirical results and arguments are to deny the importance of finance and shareholder value to a society. As pointed out by Shiller (2012), a well-functioning system of financial capitalism with strong corporate governance can indeed contribute to a good (or a better) society, which is confirmed by our empirical results on the positive relation between shareholder protection,

CSR, and Tobin's Q. Our key argument here is that protecting the rights of *other* stakeholders, besides those of shareholders, are also important for achieving a sustainable society and the maximization of firm value. Therefore, protecting stakeholder rights is not necessarily contradictory to protecting shareholder rights. Overall, this study has implications useful for policymakers aiming at stimulating socially desirable corporate behaviors and the sustainable development of the economy.

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Table 1. Intangible Value Assessment (IVA) Data Description

IVA Factor	IVA Subscore	weight	Key Metrics
Strategic governance	SG1) Strategy	<2%	Overall governance; rating composed of total scores of non-Key Issues
	SG2) Strategic Capability / Adaptability	<2%	Management of CSR issues, partnership in multi-stakeholder initiatives
	SG3) Traditional Governance Concerns	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
Human capital	HC1) Workplace Practices	<2%	Workforce diversity, policies and programs to promote diversity, work/life benefits, discrimination-related controversies
	HC2) Labor Relations	20%	*KEY ISSUE: Labor Relations* Benefits, strikes, union relations, controversies, risk of work stoppages, etc.
	HC3) Health & Safety	<2%	H&S policies and systems, implementation and monitoring of those systems, performance (injury rate, etc.), safety-related incidents and controversies
Stakeholder capital	SC1) Stakeholder Partnerships	<2%	Customer initiatives, customer-related controversies, firm's support for public policies with noteworthy benefits for stakeholders
	SC2) Local Communities	<2%	Policies, systems and initiatives involving local communities (esp. indigenous peoples), controversies related to firm's interactions with communities
	SC3) Supply Chain	<2%	Policies and systems to protect supply-chain workers' and contractors' rights, initiatives toward improving labor conditions, supply-chain-related controversies
Products and services	PS1) Intellectual Capital/ Product Development	<2%	Beneficial products and services, including efforts that benefit the disadvantaged, reduce consumption of energy and resources, and production of hazardous chemicals; average of two scores
	PS2) Product Safety	<2%	Product quality, health and safety initiatives, controversies related to the quality or safety of a firm's products, including legal cases, recalls, criticism
Emerging markets	EM1) EM Strategy	<2%	Default = 5, unless there is company specific exposure that is highly significant
	EM2) Human Rights/ Child and Forced Labor	<2%	Policies, support for values in Universal Declaration of Human Rights, initiatives to promote human rights, human rights controversies
	EM3) Oppressive regimes	<2%	Controversies, substantive involvement in countries with poor HR records
Environmental risk factors	ER1) Historic Liabilities	<2%	Controversies including natural resource-related cases, widespread or egregious environmental impacts
	ER2) Operating Risk	<2%	Emissions to air, discharges to water, emission of toxic chemicals, nuclear energy, controversies involving non-GHG emissions

	ER3) Leading/ Sustainability Risk Indicators	<2%	Water management and use, use of recycled materials, sourcing, sustainable resource management, climate change policy and transparency, climate change initiatives, absolute and normalized emissions output, controversies
	ER4) Industry Carbon Specific Risk	25%	*KEY ISSUE: Carbon* Targets, emissions intensity relative to peers, estimated cost of compliance
Environmental management capacity	EMC1) Environmental Strategy	<2%	Policies to integrate environmental considerations into all operations, environmental management systems, regulatory compliance, controversies
	EMC2) Corporate Governance	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
	EMC3) Environmental Management Systems	<2%	Establishment and monitoring of environmental performance targets, presence of environmental training, stakeholder engagement
	EMC4) Audit	<2%	External independent audits of environmental performance
	EMC5) Environmental Accounting/Reporting	<2%	Reporting frequency, reporting quality
	EMC6) Environmental Training & Development	<2%	Presence of environmental training and communications programs for employees
	EMC7) Certification	<2%	Certifications by ISO or other industry- and country-specific third party auditors
	EMC8) Products/ Materials	<2%	Positive and negative impact of products & services, end-of-life product management, controversies related to environmental impact of P&S.
Environmental opportunity factors	EO1) Strategic Competence	<2%	Policies to integrate environmental considerations into all operations and reduce environmental impact of operations, products & services, environmental management systems, regulatory compliance
	EO2) Environmental Opportunity	35%	*KEY ISSUE: Opportunities in clean technology* Product development in clean technology, R&D relative to sales and trend, innovation capacity
	EO3) Performance	<2%	Percent of revenue represented by identified beneficial products & services

Table 2. Average CSR Score across Different Legal Origins.

The Overall IVA Rating is the weighted average score for different subcategories onwards. EcoValue 21 Rating and Social Rating are from RiskMetrics. A higher score signifies that the company put more effort in the issue, and is marked by a darker color. Standard deviations are in brackets.

	English origin	French origin	Socialist origin	German origin	Scandinavian origin
General Ratings					
Overall IVA Rating	2.72 (1.74)	3.10 (1.73)	1.26 (1.21)	2.83 (1.72)	3.93 (1.74)
EcoValue 21 Rating	2.65 (1.77)	2.92 (1.78)	1.20 (1.21)	3.59 (1.85)	3.88 (1.70)
Social Rating	2.75 (1.73)	2.99 (1.75)	1.40 (1.36)	2.84 (1.63)	3.85 (1.66)
Strategic Governance	5.42 (1.85)	5.58 (1.85)	3.89 (1.57)	5.49 (1.82)	6.66 (1.73)
Strategic Governance Strategy	5.47 (2.23)	5.91 (2.23)	4.01 (2.09)	6.01 (2.05)	6.76 (2.02)
Strategic Capability Adaptability	5.28 (2.30)	5.63 (2.15)	3.83 (2.17)	5.76 (2.16)	6.38 (2.17)
Traditional Governance Concerns	5.57 (1.97)	5.31 (2.00)	4.56 (2.21)	4.93 (2.07)	6.60 (1.84)
Human Capital	5.56 (1.69)	5.88 (1.74)	4.06 (1.67)	5.44 (1.73)	6.39 (1.72)
Employee Motivation Development	5.93 (2.00)	6.30 (2.01)	4.85 (2.12)	5.71 (1.92)	6.61 (2.10)
Labor Relations	5.26 (1.85)	5.62 (2.03)	4.25 (2.25)	5.51 (1.76)	6.13 (2.01)
Health Safety	5.45 (2.14)	5.51 (2.01)	3.75 (1.97)	5.27 (2.09)	6.07 (2.11)
Stakeholder Capital	5.33 (1.87)	5.44 (1.86)	3.97 (1.25)	5.23 (1.78)	5.78 (1.91)
Customer Stakeholder Partnerships	5.21 (2.14)	5.46 (2.14)	4.01 (2.03)	5.42 (2.00)	6.09 (2.10)
Local Communities	5.86 (2.21)	5.63 (2.10)	4.84 (1.88)	5.51 (2.01)	5.28 (1.96)
Supply Chain	5.12 (2.31)	5.09 (2.20)	3.65 (2.32)	5.21 (2.15)	5.75 (2.38)
Products and Services					
Intellectual Capital Product Develop.	5.42 (2.34)	5.78 (2.25)	3.98 (1.96)	6.18 (2.29)	6.34 (1.95)
Product Safety	5.17 (2.02)	5.37 (2.25)	3.84 (2.34)	5.39 (2.11)	5.88 (2.07)
Emerging Market					
Emerging Market Strategy	5.37 (1.90)	5.61 (1.87)	4.54 (1.85)	5.27 (1.80)	5.85 (1.97)
Human Rights Child and Forced Labor	5.10 (2.12)	5.16 (2.05)	4.60 (2.08)	5.11 (1.94)	5.98 (2.13)
Oppressive Regimes	5.11 (2.13)	5.00 (1.98)	4.78 (2.08)	4.97 (1.97)	5.34 (2.05)
Environment (Overall)	4.66 (1.64)	4.87 (1.76)	3.06 (1.29)	5.49 (1.70)	5.70 (1.56)
Environmental Risk Factors	5.13 (1.92)	5.09 (1.75)	3.57 (1.38)	5.47 (1.57)	6.03 (1.40)
Historic Liabilities	5.22 (2.59)	4.92 (2.35)	3.21 (1.64)	5.25 (2.14)	6.02 (2.03)
Operating Risk	4.96 (2.40)	4.52 (2.46)	3.01 (2.08)	5.14 (2.22)	5.59 (2.48)
Leading Sustainability Risk Indicator	4.80 (2.02)	5.01 (1.99)	3.41 (1.65)	5.63 (1.94)	5.83 (1.90)
Industry Specific Carbon Risk	4.35 (2.59)	4.39 (2.75)	3.66 (2.35)	4.84 (2.54)	5.33 (2.38)

Environmental Mgmt. Capacity	4.07 (2.19)	4.55 (2.13)	3.21 (1.76)	5.46 (2.13)	5.59 (2.17)
Environmental Strategy	4.93 (2.41)	5.34 (2.38)	4.06 (2.13)	6.15 (2.28)	6.54 (2.24)
Corporate Governance	4.00 (2.45)	4.06 (2.30)	3.38 (2.18)	5.09 (2.31)	4.90 (2.31)
Environmental Management Systems	3.93 (2.57)	4.68 (2.66)	2.98 (2.20)	5.83 (2.64)	5.77 (2.62)
Audit	4.03 (2.77)	4.26 (2.79)	3.36 (2.66)	5.35 (2.84)	5.20 (2.94)
Environmental Accounting/ Reporting	3.54 (2.54)	4.26 (2.47)	2.72 (2.18)	5.57 (2.90)	5.39 (2.71)
Environmental Training Development	4.18 (2.77)	4.71 (2.64)	3.52 (2.62)	5.67 (2.60)	5.69 (2.84)
Certification	2.75 (2.54)	3.07 (2.52)	2.13 (2.11)	3.46 (2.55)	3.57 (2.85)
Products Materials	3.51 (2.53)	4.11 (2.43)	2.28 (1.81)	4.94 (2.68)	5.36 (2.61)
Environmental Opportunity Factors	5.14 (1.89)	5.17 (2.09)	4.17 (1.62)	5.59 (1.90)	6.09 (1.83)
Strategic Competence	4.38 (2.54)	4.92 (2.48)	3.52 (1.93)	6.06 (2.43)	5.98 (2.51)
Environmental Opportunity	4.47 (2.25)	4.93 (2.21)	3.49 (1.83)	5.75 (2.21)	5.87 (2.08)
Performance	4.20 (2.71)	4.63 (2.64)	3.30 (2.15)	5.57 (2.68)	5.65 (2.45)

Table 3. Non-parametric Tests on the Means of CSR indices by Legal Origins.

(Wilcoxon-Mann-Whitney Test Statistics)

The Wilcoxon-Mann-Whitney signed-rank test compares two subsamples of different legal origins to assess whether their population firm-time mean ranks differ. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors (not reported) are clustered at the country level.

	Overall IVA Rating	EcoValue 21 Rating	Social Rating	Labor Relations	Industry Specific Carbon Risk	Environmental Opportunity
Civil vs. common legal origin	18.676***	58.391***	19.059***	23.905***	22.369***	34.366***
French vs. English origin	16.044***	15.241***	12.046***	16.333***	1.855*	4.907***
German vs. English origin	3.994***	58.977***	5.906***	13.480***	22.050***	33.680***
Scandinavian vs. English origin	29.299***	40.474***	32.592***	24.327***	24.112***	33.527***
French vs. German origin	11.026***	-30.546***	6.623***	5.194***	-13.318***	-18.235***
French vs. Scandinavian origin	-18.879***	-28.764***	-23.121***	-12.277***	-19.137***	-25.728***
German vs. Scandinavian origin	-26.137***	-8.600***	-29.329***	-17.580***	-11.923***	-16.326***
Capitalist vs. Socialist origin	16.994***	27.184***	22.259***	12.920***	10.496***	19.474***

Table 4. Random-Effect GLS and Pooled OLS Models

The dependent variables are the ordinal (ranging from 0 to 6) CSR ratings from MSCI, including the overall intangible value assessment (IVA) rating, the RiskMetrics EcoValue rating (environmental rating), and the RiskMetrics Social rating. Models (1)-(6) use random-effect GLS (RE GLS) estimations, and models (7)-(9) are estimated using pooled OLS. "Financial controls" include ROA, interest coverage, financial constraints (investment-cash flow sensitivity), and financial slacks (current ratio), and are controlled for in all regressions. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	RE GLS	RE GLS	RE GLS	RE GLS	RE GLS	RE GLS	Pooled OLS	Pooled OLS	Pooled OLS
DV = CSR ratings	*IVA rating*	*EcoValue rating*	*Social rating*	*IVA rating*	*EcoValue rating*	*Social rating*	*IVA rating*	*EcoValue rating*	*Social rating*
French origin	0.399	1.076**	0.486	2.134***	2.291***	2.084***	0.724**	1.614***	1.462***
	(0.320)	(0.474)	(0.321)	(0.578)	(0.544)	(0.610)	(0.278)	(0.555)	(0.366)
German origin	0.774***	1.205**	0.506*	4.154***	3.854***	3.895***	1.797**	1.435**	2.875***
	(0.249)	(0.458)	(0.276)	(0.552)	(0.666)	(0.595)	(0.633)	(0.664)	(0.524)
Scandinavian origin	0.874***	1.714***	0.915***	3.453***	2.735***	3.244***	1.682***	1.873**	2.958***
	(0.150)	(0.355)	(0.142)	(0.502)	(0.638)	(0.412)	(0.450)	(0.816)	(0.381)
Citizenry preference	0.0060	-0.0008	0.0050	0.0537***	0.0519**	0.0519***	0.00530	0.00864	0.0361*
	(0.0133)	(0.0226)	(0.0138)	(0.0121)	(0.0200)	(0.0108)	(0.0246)	(0.0239)	(0.0178)
Regulatory quality	-0.469	0.125	-0.434	0.144	1.186*	0.414	0.932**	1.240*	0.108
	(0.445)	(0.494)	(0.421)	(0.449)	(0.608)	(0.669)	(0.409)	(0.648)	(0.461)
Democratic part.				-0.167***	-0.101***	-0.133***	0.0393*	-0.0624	-0.137***
				(0.0296)	(0.0254)	(0.0339)	(0.0199)	(0.0427)	(0.0227)
Executive constraints				-0.378	0.158	-0.560	-1.520*	0.172	-0.434
				(0.552)	(0.412)	(0.502)	(0.741)	(0.486)	(0.254)
Ln(GDP per capita)	0.183	0.120	0.308	-1.093***	-0.17	-0.842*	-1.144***	0.273	-0.479
	(0.227)	(0.295)	(0.208)	(0.311)	(0.278)	(0.416)	(0.198)	(0.233)	(0.280)
Globalization index	0.0554***	-0.0130	0.0361***	0.198***	0.0523	0.136***	0.122***	-0.0274	0.116***
	(0.0132)	(0.0139)	(0.0104)	(0.0351)	(0.0331)	(0.0353)	(0.0242)	(0.0308)	(0.0277)
Ownership disper.	0.0396	0.0105	0.0366	-0.0169	-0.150	0.0182	-0.204*	-0.307***	-0.0505
	(0.0244)	(0.0217)	(0.0236)	(0.131)	(0.127)	(0.118)	(0.102)	(0.0872)	(0.118)
Supervisory board	0.539**	0.227	0.700***	0.316	-0.315	0.102	0.150	0.560*	0.453*
	(0.205)	(0.278)	(0.178)	(0.203)	(0.241)	(0.307)	(0.464)	(0.315)	(0.256)
UO – state				-0.507	0.220	-0.741*	-2.689***	0.124	0.193
				(0.524)	(0.738)	(0.406)	(0.621)	(0.444)	(0.342)
UO – families				-0.567	0.467	-0.246	-3.103***	0.547	0.563*
				(0.349)	(0.362)	(0.307)	(0.729)	(0.468)	(0.325)
UO – foundation				2.161***	2.261***	2.038***	3.907***	2.475**	3.140***
				(0.448)	(0.438)	(0.437)	(0.347)	(1.011)	(0.856)
UO – financial				-0.656	1.173***	-0.561	-1.720***	-0.366	0.821**
				(0.406)	(0.191)	(0.353)	(0.528)	(0.345)	(0.355)
UO – pension				-1.306*	-0.0286	-0.891	-2.441***	0.307	0.0737
				(0.728)	(0.841)	(0.763)	(0.770)	(0.577)	(0.511)
UO – VC/PE				-1.798***	-1.206*	-1.628**	-5.278***	-1.804**	-1.890**
				(0.561)	(0.635)	(0.696)	(1.307)	(0.825)	(0.786)
Financial controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Time FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	19058	36350	23894	2216	3619	2726	1725	4549	3476

Table 5. Random-Effects Ordered Probit Models

The dependent variables are the ordinal (ranging from 0 to 6) CSR ratings from MSCI, including the overall intangible value assessment (IVA) rating, the RiskMetrics EcoValue rating (environmental rating), and the RiskMetrics Social rating. Models (1)-(9) are estimated using random-effect ordered probit models. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are reported in parentheses.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
DV= CSR ratings	*IVA*	*Eco Value*	*Social*	*IVA*	*Eco Value*	*Social*	*IVA*	*Eco Value*	*Social*
French origin	1.403***	-0.048*	0.181***	0.729***	1.881***	0.448***	1.750***	0.374***	0.352***
	(0.030)	(0.027)	(0.024)	(0.053)	(0.032)	(0.036)	(0.157)	(0.059)	(0.061)
German origin	2.377***	0.929***	0.040	1.756***	1.647***	0.0502	2.304***	1.335***	0.428***
	(0.033)	(0.027)	(0.026)	(0.039)	(0.029)	(0.032)	(0.082)	(0.050)	(0.070)
Scandinavian origin	2.557***	1.204***	2.128***	3.082***	1.084***	0.701***	3.769***	1.658***	0.773***
	(0.044)	(0.031)	(0.051)	(0.069)	(0.034)	(0.035)	(0.222)	(0.036)	(0.044)
Corruption control				-0.108**					
				(0.049)					
Executive constraints					-0.059***	-0.224***	-1.045***	0.188**	-0.022
					(0.020)	(0.019)	(0.073)	(0.074)	(0.084)
Citizenry preference							0.001***	-0.007***	0.024***
							(0.002)	(0.003)	(0.003)
Regulatory quality				0.371***	0.498***	-0.370***	0.199**	0.345***	-0.554***
				(0.093)	(0.037)	(0.061)	(0.083)	(0.055)	(0.076)
Ln(GDP per capita)				0.604***	0.752***	0.944***	2.168***	-0.187***	0.610***
				(0.046)	(0.027)	(0.047)	(0.093)	(0.036)	(0.050)
Board tier structure				-0.142***	-0.098***	0.034***	-0.484***	0.027***	0.005
				(0.029)	(0.004)	(0.004)	(0.096)	(0.004)	(0.005)
Ownership dispersion				-0.002	0.615***	1.399***	0.0183**	-0.383***	1.666***
				(0.005)	(0.030)	(0.037)	(0.009)	(0.03)	(0.055)
ROA				-1.201***	-0.682***	-0.741***	-1.298***	-1.046***	-0.349*
				(0.190)	(0.111)	(0.190)	(0.204)	(0.148)	(0.185)
Interest coverage				-0.0004	0.0039*	0.0015	-0.0003	0.0097***	0.0043
				(0.0004)	(0.0021)	(0.0024)	(0.0004)	(0.0030)	(0.0031)
Financial constraints				0.0056*	0.0008***	-0.0000	0.0055	0.0012***	-0.0007**
				(0.0031)	(0.0003)	(0.0003)	(0.0034)	(0.0003)	(0.0003)
Financial slack				-0.019**	-0.038***	-0.024**	-0.030***	-0.052***	-0.020***
				(0.008)	(0.006)	(0.010)	(0.008)	(0.007)	(0.008)
N	47775	90496	61119	26855	51211	33596	23311	36775	24152
Log likelihood	-56053.969	-119273.51	-80403.812	-30524.54	-65480.907	-42368.574	-26270.477	-46230.904	-29573.759

Table 6. Testing Effects of Legal Origins on Other CSR Data (Random-Effects GLS)

The dependent variables are the different ESG Ratings from MSCI Impact Monitor, Vigeo ESG Ratings, and the Asset4 database, respectively. The independent variables are the same as in Table 5 except that citizenry preference is not included. The democratic participation index used in all columns is from the Vanhanen index. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

	MSCI Impact Monitor		Vigeo ESG						Asset 4 ESG					
DV = CSR ratings	*Overall Score*		*Corporate Governance*		*Human Resources Rating*		*Consumer & Supplier Rating*		*Environmental Rating*		*Social Rating*		*Overall CSR Rating*	
	(1)		(3)		(4)		(5)		(6)		(7)		(8)	
Laws														
French origin	1.616*	(0.792)	-16.51***	(2.333)	11.628*	(6.501)	7.360**	(3.282)	17.87*	(10.11)	17.27*	(10.26)	10.20	(9.512)
German origin	1.861***	(0.386)	-21.57***	(2.270)	7.786***	(2.454)	0.273	(2.276)	15.57***	(4.920)	1.218	(5.921)	-11.00**	(5.053)
Scandinavian origin	1.517***	(0.517)	-17.05***	(4.372)	8.929***	(3.126)	6.892***	(2.406)	31.85***	(9.735)	26.39***	(10.07)	25.44***	(8.640)
Political institutions														
Democratic participation	0.029	(0.033)	0.096	(0.169)	-0.007	(0.115)	-0.299**	(0.132)	0.277	(0.648)	-0.084	(0.646)	-0.245	(0.558)
Executive constraints	-0.256	(0.194)	1.176	(2.323)	-1.241	(4.035)	2.719	(2.621)	-3.263	(5.091)	-1.580	(4.874)	0.003	(4.377)
Regulatory quality	2.706**	(1.179)	4.608	(5.504)	7.559	(6.971)	10.291***	(2.948)	23.61***	(7.540)	21.26**	(8.615)	25.79	(7.955)
Corruption control									-19.49***	(2.762)	-23.24***	(3.287)	-25.60***	(3.117)
Economic development														
Ln(GDP per capita)	-2.643***	(0.829)	-2.475	(4.621)	-16.42***	(2.727)	-12.066***	(2.818)	9.860*	(5.207)	9.537*	(5.535)	14.08**	(5.598)
Globalization index	-0.080	(0.048)	0.850***	(0.190)	0.497***	(0.210)	-0.032	(0.112)	-0.536	(0.643)	0.061	(0.664)	-0.072	(0.573)
Ownership and governance														
Ownership dispersion	-0.063	(0.040)	0.463***	(0.114)	0.097	(0.148)	0.025	(0.129)	0.310	(0.290)	0.179	(0.354)	0.622*	(0.330)
Supervisory board	-0.317	(0.777)	4.393*	(2.530)	0.953	(2.506)	3.043	(1.945)	8.787	(5.542)	16.57**	(6.549)	18.29***	(6.291)
Controls														
ROA	-3.483*	(1.818)	0.156**	(0.077)	-0.134**	(0.066)	-0.067	(0.059)	3.894	(3.732)	3.845	(6.265)	27.31***	(6.173)
Interest coverage	0.014***	(0.003)	-0.042***	(0.007)	-0.013	(0.020)	-0.014	(0.018)	-0.036***	(0.009)	-0.026**	(0.011)	-0.011	(0.013)
Financial constraints	-0.010	(0.020)	0.001	(0.003)	-0.014***	(0.001)	-0.012***	(0.001)	-0.004***	(0.001)	0.001	(0.001)	-0.007***	(0.001)
Financial slack	-0.180	(0.174)	0.746	(0.903)	-1.641***	(0.620)	-0.857	(0.979)	-0.410	(0.636)	-0.441	(0.658)	-0.985	(0.613)
Constant	36.75***	(8.012)	-9.544	(55.07)	156.5****	(36.67)	142.18***	(30.10)	-8.911	(48.05)	-41.69	(52.21)	-89.19*	(51.27)
No. of observations	751		4283		4283		4283		13583		13583		13583	
R- square adj.	12.7%		44.1%		27.5%		5.1%		6.3%		4.1%		3.9%	

Table 7. Investor Protection, Cultures, and Corporate Social Responsibility (Random-Effects GLS)

The dependent variables are the ordinal (ranging from 0 to 6) overall IVA rating, RiskMetrics EcoValue rating (environmental rating), and RiskMetrics social rating, respectively. The independent variables are legal origins (omitting the English legal origin as the base case), anti-director rights index (ADRI), the Vanhanen democratic participation index, political executive constraints, regulatory quality, ownership dispersion, tier structure or a supervisory board dummy, the ultimate owner (UO] dummies, and financial controls (ROA, financial constraints, interest coverage, financial slack). The democratic participation index used in all columns is from the Vanhanen index. The five cultural dimensions are from Hofstede and Hofstede (2005) and measured at the country-level. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

DV = CSR ratings	*IVA Rating*				*EcoValue21 Rating*				*Social Rating*			
	(1)		(2)		(3)		(4)		(5)		(6)	
Law												
French origin	1.207***	(0.314)	1.036	(0.684)	0.922**	(0.443)	1.677***	(0.563)	0.829***	(0.218)	0.601	(0.591)
German origin	1.185***	(0.290)	2.050***	(0.388)	0.662*	(0.347)	1.101*	(0.565)	1.118***	(0.259)	2.210***	(0.301)
Scandinavian origin	1.337***	(0.346)	1.849***	(0.478)	1.661***	(0.463)	1.193*	(0.640)	1.181***	(0.253)	1.928***	(0.476)
Adjusted ADRI	0.343***	(0.063)	0.699***	(0.090)	0.294***	(0.064)	0.737***	(0.159)	0.369***	(0.070)	0.605***	(0.082)
Political institutions												
Democratic part.	-0.013	(0.010)	-0.038**	(0.018)	-0.013	(0.014)	-0.049**	(0.020)	-0.009	(0.011)	-0.031*	(0.017)
Exec. Constraints	0.309**	(0.131)	-0.524*	(0.292)	0.064	(0.136)	0.283	(0.435)	0.111	(0.231)	-0.672**	(0.257)
Regulatory quality	0.097	(0.319)	-0.775*	(0.446)	0.639*	(0.355)	-0.221	(0.411)	-0.469	(0.405)	-0.894**	(0.353)
Cultural dimensions												
Power distance	0.008	(0.011)	-0.015	(0.016)	0.005	(0.008)	-0.036	(0.024)	-0.001	(0.014)	-0.013	(0.014)
Individualism	0.004	(0.002)	0.047***	(0.008)	-0.0004	(0.005)	0.014*	(0.008)	0.008	(0.008)	0.041***	(0.006)
Masculinity	0.001	(0.006)	-0.021**	(0.008)	0.011*	(0.007)	-0.007	(0.008)	0.0003	(0.004)	-0.020**	(0.009)
Uncertainty avoid.	-0.009	(0.006)	0.014	(0.011)	0.002	(0.008)	-0.009	(0.013)	-0.009	(0.006)	0.018*	(0.010)
Pragmatism	-0.026***	(0.006)	-0.037***	(0.010)	-0.011***	(0.004)	-0.000	(0.014)	-0.026***	(0.005)	-0.041***	(0.008)
Ownership and governance												
Ownership disper.	0.051**	(0.025)	0.129	(0.165)	0.027	(0.021)	-0.008	(0.144)	0.056**	(0.022)	0.147	(0.151)
Supervisory board	0.379*	(0.202)	1.421***	(0.240)	0.410	(0.204)	0.763***	(0.270)	0.225	(0.182)	0.676***	(0.202)
UO – state			-0.180	(0.510)			0.444	(0.642)			-0.223	(0.413)
UO – families			-1.108***	(0.370)			-0.551*	(0.321)			-0.987**	(0.357)
UO – foundation			0.208	(0.393)			0.992***	(0.351)			0.183	(0.282)
UO – financial			0.786**	(0.347)			1.084***	(0.320)			0.600*	(0.305)
UO – pension			-1.806***	(0.498)			-1.862***	(0.434)			-1.731***	(0.418)
UO – VC/PE			-1.180	(1.064)			0.036	(0.709)			-0.969	(1.161)
Controls												
ROA	-0.351	(0.317)	-1.534	(2.202)	-0.599**	(0.289)	-0.527	(2.106)	-0.488	(0.387)	0.047	(2.305)
Interest coverage	0.001	(0.001)	0.004	(0.004)	0.001	(0.001)	-0.004	(0.004)	0.001	(0.001)	0.001	(0.003)
Fin. Constraints	0.004**	(0.002)	0.016	(0.096)	-0.0004	(0.004)	0.005	(0.091)	0.004	(0.004)	-0.082	(0.128)
Financial slack	-0.012	(0.017)	-0.041	(0.086)	-0.042**	(0.020)	0.090	(0.078)	-0.029	(0.018)	0.013	(0.063)
Constant	0.174	(1.120)	4.823	(2.727)	-0.457	(1.106)	-0.140	(3.382)	2.106	(1.785)	5.746**	(2.407)
Year FE	Yes		Yes		Yes		Yes		Yes		Yes	
Industry FE	No		Yes		No		Yes		No		Yes	
R-squared adj.	9.8%		69.5%		9.4%		62.5%		8.5%		63.7%	
No. observations	26042		2336		50717		3898		33202		2939	

Table 8. The Determinants of Country-Level Sustainability

The table shows OLS regressions for the cross-section of countries. The dependent variables are the 2013 country-level overall sustainability rating, environmental sustainability rating, social sustainability and solidarity rating, and the institutional sustainability rating from Vigeo. The independent variables in Panel A are legal origins (omitting the English legal origin as the base case), anti-director rights index (ADRI), the Vanhanen democratic participation index (average across 1960-2000), political executive constraints index (average across 1996-2008), regulatory quality index (average across 1960-2012), the logarithm of GDP per capita, and the globalization index. The independent variables in Panel B are similar to those in Panel A except that the Vanhanen index is replaced by the Polity IV democracy index (average across 1960-2008), and the political executive constraints index is replaced by the corruption control index (average across 1996-2008). *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A.

DV = country sustainability	*Overall sustainability rating* (1)		*Environmental sustainability rating* (2)		*Social sustainability and solidarity rating* (3)		*Institutional sustainability rating* (4)	
Legal origins								
French origin	5.412***	(1.700)	-0.235	(2.458)	6.124*	(3.111)	12.053***	(3.190)
German origin	8.157***	(2.746)	8.073***	(2.915)	5.610	(4.021)	10.205*	(5.594)
Scandinavian origin	11.661***	(2.337)	9.335**	(3.568)	13.076***	(3.035)	11.601***	(3.301)
Adjusted ADRI	0.852	(0.798)	0.119	(1.048)	0.397	(1.457)	2.645*	(1.357)
Political institutions								
Democratic part. (1960-2000)	0.100	(0.104)	-0.135	(0.128)	0.251	(0.186)	0.264	(0.216)
Regulatory quality (1996-2012)	2.487	(2.343)	0.191	(3.988)	5.043	(3.523)	3.385	(3.955)
Exec. constraints (1960-2008)	0.245	(0.423)	0.581	(0.536)	-0.008	(0.771)	0.208	(0.706)
Economic development								
Ln(GDP per capita) (1960-2011)	1.715	(2.058)	-0.074	(2.214)	5.357**	(2.150)	1.748	(3.388)
Globalization index (1970-2010)	0.064	(0.064)	-0.029	(0.147)	-0.053	(0.212)	0.160	(0.287)
Observations	41		41		41		41	
Adj. R-square	80.7%		35.4%		85.7%		75.5%	

Panel B.

DV = country sustainability	*Overall sustainability rating*		*Environmental sustainability*		*Social sustainability and solidarity*		*Institutional sustainability*	
Legal origins								
French origin	5.325***	(1.956)	-1.986	(1.874)	6.817**	(3.308)	13.213***	(3.711)
German origin	8.208***	(2.563)	10.684***	(3.577)	4.318	(3.610)	8.513	(5.225)
Scandinavian origin	13.224***	(2.895)	11.928**	(4.684)	14.673***	(3.088)	12.295***	(4.056)
Adjusted ADRI	0.878	(0.914)	0.557	(0.920)	0.629	(1.616)	1.761	(1.713)
Political institutions								
Polity IV democ. (1960-2008)	0.824	(1.507)	0.137	(1.232)	0.205	(1.920)	3.139	(2.174)
Corruption control (1996-2008)	-3.109	(3.447)	-10.255**	(3.900)	-0.970	(4.755)	2.847	(5.889)
Regulatory quality (1996-2012)	5.356	(3.724)	9.718*	(5.275)	5.379	(5.818)	1.504	(5.793)
Exec. constraints (1960-2008)	-0.572	(1.578)	0.182	(1.538)	0.181	(2.456)	-3.107	(2.343)
Economic development								
Ln(GDP per capita)	1.682	(1.789)	0.625	(2.067)	6.016**	(2.262)	-0.426	(3.804)
Globalization index	0.127	(0.131)	0.048	(0.129)	0.039	(0.224)	0.189	(0.291)
Observations	41		41		41		41	
Adj. R-square	81.1%		44.9%		84.6%		77.0%	

Table 9. Quasi-Natural Experiments: Multiple Listing across Legal Regimes

The dependent variables are the overall CSR rating, the environmental rating, and the social rating from the ASSET4 corporate ESG database. Each row reports the result from one model. The differences-indifferences (DiD) estimator in all models is the coefficient on "Cross-listing × year", where cross-listing is a dummy variable indicating the firm had cross-listing history and year is a dummy variable indicating which year the firm was dual-listed across legal regimes. All regressions control for country, year, and industry fixed effects. Panel A reports results of cross-listing from common law countries to French civil law countries, and Panel B reports results of cross-listing from French civil law countries to common law countries. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

DV = CSR ratings		Cross listing×year	Cross listing	Tobin's Q	CF rights	CF rights sq.	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Panel A. The Effect of Cross-Listing from Common Law to French Civil Law on Firm CSR Ratings											
(1)	*Overall CSR*	4.058***	10.36***	0.456***	-0.238**	0.0015	13.04***	7.882***	3.324***	1.730	1.273**
		(0.981)	(2.237)	(0.118)	(0.105)	(0.0011)	(4.993)	(0.522)	(0.569)	(2.122)	(0.554)
				Country, Year, Industry fixed effects:			Yes	R-squared:	43.5%	Obs:	10295
(2)	*Environmental*	4.538***	14.68***	0.449***	-0.164	0.0014	1.744**	8.026***	2.483***	-2.266	-0.173
		(1.144)	(4.881)	(0.110)	(0.0999)	(0.0010)	(0.827)	(0.406)	(0.450)	(3.995)	(0.345)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.3%	Obs:	10430
(3)	*Social*	2.796***	11.86***	0.526***	-0.179**	0.0016	1.525**	7.630***	2.475***	4.715*	0.839*
		(0.777)	(3.445)	(0.101)	(0.0827)	(0.0010)	(0.676)	(0.337)	(0.522)	(2.488)	(0.508)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.8%	Obs:	10430
(4)	*Overall CSR (t+1)*	0.200	9.853***	0.321***	-0.232*	0.0014	4.103**	7.510***	2.926***	1.591	0.931***
		(0.566)	(1.963)	(0.0970)	(0.129)	(0.0014)	(1.767)	(0.405)	(0.465)	(2.205)	(0.326)
				Country, Year, Industry fixed effects:			Yes	R-squared:	41.7%	Obs:	9027
(5)	*Environmental (t+1)*	2.300***	13.00***	0.217	-0.170*	0.0013	1.586	8.147***	2.307***	-2.926	-0.272
		(0.715)	(4.299)	(0.140)	(0.102)	(0.0012)	(1.015)	(0.482)	(0.358)	(4.414)	(0.287)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.0%	Obs:	9332
(6)	*Social (t+1)*	2.382***	10.48***	0.468***	-0.182	0.00170	3.344**	7.286***	2.510***	3.711*	0.812*
		(0.800)	(2.792)	(0.101)	(0.136)	(0.0017)	(1.543)	(0.425)	(0.578)	(2.047)	(0.428)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.5%	Obs:	9332
Panel B. The Effect of Cross-Listing from French Civil Law to Common Law on Firm CSR Ratings											
(7)	*Overall CSR*	3.545	-0.483	0.466***	-0.241**	0.0015	13.083***	8.012***	3.326***	1.700	1.274**
		(4.322)	(9.870)	(0.116)	(0.104)	(0.0011)	(4.993)	(0.510)	(0.572)	(2.134)	(0.556)
				Country, Year, Industry fixed effects:			Yes	R-squared:	43.5%	Obs.	10295
(8)	*Environmental*	5.296	4.096	0.458***	-0.168*	0.0014	1.784**	8.173***	2.469***	-2.308	-0.171
		(7.316)	(11.315)	(0.107)	(0.098)	(0.0010)	(0.824)	(0.431)	(0.447)	(3.975)	(0.347)
				Country, Year, Industry fixed effects:			Yes	R-squared:	47.3%	Obs:	10430
(9)	*Social*	-2.390	3.226	0.532***	-0.182**	0.0016*	1.568**	7.744***	2.455***	4.716*	0.840*
		(4.945)	(9.522)	(0.097)	(0.081)	(0.0010)	(0.662)	(0.341)	(0.522)	(2.491)	(0.509)
				Country, Year, Industry fixed effects:			Yes	R-squared:	42.8%	Obs:	10430

Table 10. Quasi-Natural Experiments: Scandals and Disasters

The dependent variables are the product responsibility rating from ASSET4 in Panel A, the amount of corporate donations from Datastream in Panel B, and the overall environmental rating (environmental score) from ASSET4 in Panel C. Each row reports the result from one model. The differences-indifferences (DiD) estimator is the coefficient on "Civil law × 2009" in Panel A, the coefficient on "Civil law × 2005" in Panel B, and the coefficient on "Civil law × 2010" in Panel C. The control variables are the same as in Table 9. All regressions control for country, year, and industry fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the country level and reported in parentheses.

Panel A. The Effect of the China Milk Scandal on Customer & Product Responsibility in Food-Related Industries Across Legal Origins

DV = CSR	Civil law × 2009	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Product Responsibility	7.654*	31.39***	0.756	-0.097	0.0014	-3.572	1.653	1.854	-2.906	-0.134
	(4.580)	(11.82)	(0.597)	(0.200)	(0.0023)	(6.854)	(1.221)	(1.687)	(8.219)	(1.044
			Country, Year, Industry fixed effects:			Yes	R-squared:	15.9%	Obs:	1087

Panel B. The Effect of Asian Earthquake and Tsunami on Corporate Donations in All Industries Across Legal Origins

	Civil law × 2005	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Corporate Donations	4.976*	23.92	0.361**	-0.089	0.001	-4.468**	6.415***	2.285***	4.993*	-0.426
	(2.875)	(24.39)	(0.162)	(0.0709)	(0.001)	(1.862)	(0.387)	(0.577)	(2.705)	(0.315)
			Country, Year, Industry fixed effects:			Yes	R-squared:	24.6%	Obs:	10353

Panel C. The Effect of Deepwater Horizon Oil Spill on Corporate Environmental Performance in Energy-Related Industries Across Legal Origins

	Civil law × 2010	Civil law	Tobin's Q	CF rights	CF rights²	ROA	Ln(Assets)	Ln(age)	Ln(GDP)	Globalization
Environmental Score	7.041**	15.56	0.517	-0.303*	0.0033*	-0.801	9.226***	1.950	-4.195	1.667*
	(3.124)	(16.46)	(0.432)	(0.157)	(0.002)	(3.123)	(0.806)	(1.420)	(7.711)	(0.868)
			Country, Year, Industry fixed effects:			Yes	R-squared:	62.8%	Obs:	1340

Table 11. CSR and Shareholder Value: Two Stage Least Squares Regressions

This table reports the 2nd stage results from the instrumental variable (IV) approach with 2SLS estimations. The IV for CSR in the 1st stage is the country-level political orientation (left, center, right) of the government. The dependent variable is Tobin's Q measured by the winsorized (at 5% level) market-to-book ratio of equity in models (1)-(5), and the winsorized (at 5% level) market-to-book ratio of assets in models (6)-(10). The subtitle under each model indicates which CSR measure is used as the independent variable in the 2nd stage (predicted from the 1st stage): the overall IVA rating, the EcoValue rating (environmental rating), the social rating, the labor relations rating, and the environmental opportunity rating, all from the MSCI IVA sample. All regressions control for firm fixed effects. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

	DV = MTB equity, winsorized at 5%						*DV = MTB assets, winsorized at 5%*					
CSR measures:	*IVA rating*		*EcoValue rating*		*Social rating*		*IVA rating*		*EcoValue rating*		*Social rating*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Political orientation	0.333***		0.305***		0.331***		0.331***		0.301***		0.329***	
	(0.018)		(0.013)		(0.016)		(0.018)		(0.013)		(0.016)	
CSR (predicted from 1st stage)		0.181***		0.291***		0.283***		-0.0089		0.0358**		0.0262*
		(0.0416)		(0.0407)		(0.0404)		(0.0143)		(0.0148)		(0.0137)
Largest shareholder ownership	0.003***	0.0006*	0.001***	0.0008**	0.003***	-0.0000	0.003***	0.0000	0.001***	-0.0002**	0.003***	-0.0003**
	(0.0005)	(0.0004)	(0.0003)	(0.0003)	(0.0004)	(0.0003)	(0.0005)	(0.0001)	(0.0003)	(0.0001)	(0.0004)	(0.0001)
Sales growth rate	-0.010***	0.008***	-0.005***	0.008***	-0.008***	0.010***	-0.010***	0.001***	-0.005***	0.002***	-0.008***	0.002***
	(0.001)	(0.0008)	(0.001)	(0.0006)	(0.001)	(0.0007)	(0.001)	(0.0003)	(0.001)	(0.0002)	(0.001)	(0.0002)
Dividend payout ratio	0.0001	-0.0167**	0.002***	0.0003	0.004***	0.0033***	-0.0001	-0.0063***	0.002***	-0.0006***	0.004***	0.0007***
	(0.009)	(0.0069)	(0.001)	(0.0006)	(0.001)	(0.0007)	(0.0089)	(0.0023)	(0.001)	(0.0002)	(0.001)	(0.0002)
Leverage, winsorized	-0.014*	0.321***	-0.012**	0.298***	-0.018***	0.292***	-0.014*	0.0261***	-0.012**	0.0230***	-0.019***	0.0278***
	(0.007)	(0.0056)	(0.005)	(0.0045)	(0.006)	(0.0049)	(0.007)	(0.0019)	(0.005)	(0.0016)	(0.006)	(0.0017)
Ln(assets)	0.021***	-0.055***	0.226***	-0.156***	0.025***	-0.076***	0.021***	-0.025***	0.225***	-0.055***	0.024***	-0.036***
	(0.007)	(0.0049)	(0.005)	(0.0076)	(0.006)	(0.0046)	(0.007)	(0.0017)	(0.005)	(0.0028)	(0.006)	(0.0015)
ROA	0.399	16.57***	0.781***	11.59***	0.325	15.07***	0.394	8.623***	0.790***	5.946***	0.318	7.559***
	(0.295)	(0.227)	(0.171)	(0.160)	(0.235)	(0.199)	(0.295)	(0.0775)	(0.171)	(0.0575)	(0.235)	(0.0674)
Financial constraints	-0.037***	-0.022***	-0.008**	-0.042***	-0.025***	-0.032***	-0.037***	-0.004*	-0.009**	-0.017***	-0.026***	-0.012***
	(0.009)	(0.0070)	(0.004)	(0.0035)	(0.007)	(0.0064)	(0.009)	(0.0024)	(0.004)	(0.0013)	(0.007)	(0.0022)
Current ratio	-0.193***	-0.039***	-0.189***	0.036***	-0.168***	0.005	-0.193***	0.010**	-0.190***	0.047***	-0.169***	0.031***
	(0.014)	(0.013)	(0.009)	(0.012)	(0.012)	(0.013)	(0.014)	(0.005)	(0.009)	(0.004)	(0.012)	(0.004)
CapEx/Sales	-0.238**	0.386***	-0.059	0.335***	-0.281***	0.385***	-0.237***	0.209***	-0.053	0.215***	-0.280***	0.207***
	(0.111)	(0.086)	(0.097)	(0.090)	(0.104)	(0.089)	(0.111)	(0.029)	(0.097)	(0.032)	(0.104)	(0.030)
Constant	2.723***	1.151***	0.907***	1.946***	2.589***	1.110***	2.731***	1.408***	0.925***	1.686***	2.594***	1.449***
	(0.108)	(0.177)	(0.076)	(0.100)	(0.092)	(0.166)	(0.108)	(0.061)	(0.076)	(0.036)	(0.092)	(0.056)
N	14727	14727	25803	25803	18388	18388	14744	14744	25849	25849	18492	18429
Firm Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	0.0051	0.4208	0.0098	0.3037	0.0047	0.3751	0.0051	0.5493	0.0098	0.3792	0.0048	0.5052
1st stage Cragg-Donald F stat	341.299		512.732		440.321		338.072		499.234		438.761	

Table 12. CSR, Entrenchment, and Shareholder Value

The dependent variable is Tobin's Q (market-to-book ratio of assets) winsorized at 5% level for all regressions. Entrenchment Index 1 is the sum of the following dummy variables from Datastream: the presence of (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions, treating non-available values as zeros. Entrenchment Index 2 has the similar composition as Entrenchment Index 1 (and hence also treats non-available values as zeros), except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). CSR is measured by ASSET4's overall CSR rating for columns (1)—(2), ASSET4's aggregate environmental rating for columns (3)—(4), and ASSET4's aggregate social rating for columns (5)—(6). Other financial controls are the same as in Table 11, which include: (winsorized) sales growth rate, (winsorized) dividend payout ratio, (winsorized) leverage, the logarithm of total assets, ROA, financial constraints, current ratio, (winsorized) and CapEx/sales, etc. All specifications include country fixed effects, industry fixed effects, and year fixed effects. Standard errors are clustered at the firm level and reported in parentheses. *, **, *** stand for statistical significance at the 10%, 5%, and 1%, respectively.

	Overall CSR rating		*Environmental rating*		*Social rating*	
DV = Tobin's Q, winsorized at 5%	(1)	(2)	(3)	(4)	(5)	(6)
CSR	0.0011**	0.0010**	-0.0001	-0.0001	0.0005	0.0002
	(0.0004)	(0.0005)	(0.0004)	(0.0004)	(0.0004)	(0.0004)
Entrenchment Index 1	-0.0314**		-0.0304**		-0.0385***	
	(0.0141)		(0.0126)		(0.0135)	
Entrenchment Index 2		-0.0325***		-0.0298***		-0.0440***
		(0.0126)		(0.0115)		(0.0121)
CSR × Entrenchment Index	0.0005**	0.0004**	0.0005***	0.0004***	0.0006***	0.0007***
	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)	(0.0002)
Largest shareholder ownership	0.0009	0.0009	0.0007	0.0007	0.0007	0.0007
	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)	(0.0006)
Other financial controls	Yes	Yes	Yes	Yes	Yes	Yes
Country fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
N	14877	14877	15044	15044	15044	15044
R-squared	0.3817	0.3818	0.3776	0.3776	0.3811	0.3811

Appendix. Definitions of Independent Variables

Variable	Definition
	I. Law
Legal origins	The legal origin of the company law or commercial code of each country in which the focal firm is headquartered. We distinguish five major legal origins: English common law, French commercial code (civil law), German commercial code (civil law), Scandinavian civil law, and Socialist law. Source: LLSV (1998).
Anti-director rights index (ADRI)	The anti-director rights index (ADRI) was first developed in LLSV (1998) as a measure of investor protection against corporate management, and later on revised in La Porta *et al.* (2008) and Spamann (2010). All the three ADRIs consist of the same six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; (6) percentage of share capital to call an extraordinary shareholder meeting. Each component is a dummy variable and the ADRI is formed by aggregating the value of all six components. The index ranges from 0 to 6, whereby a higher value of the index indicates stronger shareholder protection. Source: LLSV (1998); La Porta *et al.* (2008); Spamann (2010).
	II. Political Institutions
Vanhanen's index of democratic participation	Tutu Vanhanen's index of democracy is computed by multiplying the political competition and political participation variables (also defined and calculated by WDR2011) and by dividing the outcome by 100. Higher value of the index implies higher level of democracy. The Vanhanen's measure on political competition is used to denote the electoral success of the smaller parties (i.e., the proportion of the votes won by those parties in parliamentary and/or presidential elections) to indicate the degree of competition in a political system. This index is calculated by subtracting the percentage of the votes won by the largest party from 100 percent. The Vanhanen's measure on political participation is the percentage of the population that actually voted in these elections (electoral participation). The total population is used as denominator and not the adult or enfranchised population). A combination of the two variables is expected to yield a more realistic indicator of democratization than either as a stand-alone measure. The Index value is taken for 2000, the initial year of data available for most companies in our sample. Source: PRIO/CSCW – World Bank.
Polity IV democratic participation	Institutionalized Democracy: Democracy is conceived as three essential, interdependent elements: (i) the presence of institutions and procedures through which citizens can express effective preferences about alternative policies and leaders; (ii) the existence of institutionalized constraints on the exercise of power by the executive; (iii) the guarantee of civil liberties to all citizens in their daily lives and in acts of political participation. Other aspects of plural democracy, such as the rule of law, systems of checks and balances, freedom of the press, and so on are means to, or specific manifestations of, these general principles. The Democracy indicator is an additive eleven-point scale (0-10). Higher value of the index implies higher level of democracy. Source: Polity IV.
Political executive constraints	Political Executive Constraints (Decision Rules): (1) Unlimited Authority: There are no regular limitations on the political executive's actions (as distinct from irregular limitations such as the threat or actuality of coups and assassinations); (2) Intermediate Category; (3) Slight to Moderate Limitation on Political Executive Authority: There are some real but limited restraints on the executive; (4) Intermediate Category; (5) Substantial Limitations on Political Executive Authority: The executive has more effective authority than any group to which is it is accountable but the executive is subject to substantial constraints that group imposes in it; (6) Intermediate Category; (7) Executive Parity or Subordination: Accountability groups have effective authority equal to or greater than the executive in most areas of activity. Source: Polity IV.
Corruption control	The extent to which public power is exercised for private gain, including petty and grand forms of corruption, as well as the "capture" of the state by elites and private interests. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Source: World Governance Indicator – World Bank.
Regulatory quality	The ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Coded from -2.5 to 2.5 with higher values corresponding with better governance outcomes. Higher value of the index implies a higher level of regulatory quality. Source: World Governance Indicator – World Bank.

Political orientation of executive party	The political orientation data measures the chief executive party's orientation with respect to economic policy, coded based on the description of the party in the sources, using the following criteria: "Right" (coded as 1) is for parties that are defined as conservative, Christian democratic, or right-wing. "Center" (coded as 2) is for parties that are defined as centrist or when party position can best be described as centrist (e.g. party advocates strengthening private enterprise in a social-liberal context). Not described as centrist if competing factions "average out" to a centrist position (e.g. a party of "right-wing Muslims and Beijing-oriented Marxists"). "Left" (coded as 3) is for parties that are defined as communist, socialist, social democratic, or left-wing. "0" is for all those cases which do not fit into the above-mentioned category (i.e. party's platform does not focus on economic issues, or there are competing wings), or no information. "NA" is for those cases in which there is no executive.
	III. Economic Development
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Source: World Bank.
Globalization index	The KOF Index of Globalization measures the three main dimensions of globalization: (1) economic, (2) social, and (3) political. In addition to three indices measuring these dimensions, an overall index of globalization and sub-indices are also calculated referring to (1) actual economic flows, (2) economic restrictions, (3) data on information flows, (4) data on personal contact, and (5) data on cultural proximity. Data are available on a yearly basis over the period 1970-2010. A higher score indicates higher degree of globalization. Source: Swiss Federal Institute of Technology Zurich (ETH).
	IV. Cultures
Citizenry preference	The fraction of surveyees in each country who answered "A great deal" or "Quite a lot" (relative to "Not very much" and "None at all") to the following question: How much confidence do you have in major companies (to take social responsibility). Source: World Value Survey (assembled by the Association of Religion Data Archives: www.TheARDA.com)
Power distance	"Power distance" deals with the fact that all individuals are not equal and is defined as **the extent to which the less powerful members of institutions and organizations within a country expect and accept that power is distributed unequally.** The concept captures whether or not a society's inequality is endorsed by the followers as much as by the leaders. A higher score signifies a large power distance between individuals. Source: Hofstede and Hofstede (2005).
Individualism	Individualism is **the degree of interdependence a society maintains among its members** and defines people's self-image in terms of "I" or "We". In individualist societies, people are supposed to look only after themselves and their direct family whereas in collectivist societies people belong to 'in groups' that take care of them in exchange for loyalty. A higher score indicates more individualism in society. Source: Ibid.
Masculinity/ Femininity	A high score on the Masculinity/Femininity dimension indicates that a masculine society is driven by competition, achievement and success, with success being defined by the "winner" or "best-in-the-field." A low score means that the dominant values in the feminine society consist of caring for others and quality of life. A feminine society is one where quality of life is the sign of success and standing out from the crowd is not admirable. **Source:** Ibid.
Uncertainty avoidance	Uncertainty avoidance represents how a society deals with the fact that the future is uncertain: should one try to control the future or just let it happen? **The extent to which the members of a culture feel threatened by ambiguous or unknown situations and have created beliefs and institutions that try to avoid these** is reflected in the UAI score. A higher score implies a higher level of uncertainty avoidance. Source: Ibid.
Pragmatism	Pragmatism describes *how every society has to maintain some links with its own past while dealing with the challenges of the present and future*. Normative societies who score low on this dimension, for example, prefer to maintain time-honored traditions and norms while viewing societal change with suspicion. Those with a culture which scores high, on the other hand, take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. **Source:** Ibid.
	V. Ownership and Governance

Ownership dispersion	Bureau van Dijk's Independence indicator shows different categories ranging from A to D. Category A (divided into A+, A, and A-) represents the group of "independent companies" and consists of companies without any shareholders holding more than 25% of the direct or total ownership. Category B (divided into B+, B, and B-) consists of companies without shareholders holding more than 50% of direct, indirect or total ownership, but with one or more shareholders holding more than 25% of direct or total ownership. Category C (divided into C+ and C) represents the group of "indirectly majority owned companies" and consists of companies without shareholder holding more than 50% of direct ownership, but with one shareholder holding more than 50% of total ownership. Category D represents the group of "directly majority owned companies" and consists of companies with one shareholder holding more than 50% of direct ownership. The ratings translated into these numbers: A+ = 9, A= 8, A-= 7, B+= 6, B= 5, B-= 4, C+= 3, C= 2, D= 1. Source: Orbis.
Ultimate owner (UO)	UO stands for the percentage of direct voting rights owned by this shareholder who is identified by following the path of uninterrupted control rights (at 50%) throughout the ownership pyramid. UO – state: the ultimate owner of the subject company is the state, the government or a public authority; UO – families: the ultimate owner is one or more named individuals or families; UO – foundation: the ultimate owner is a foundation or research institute; UO – financial: the ultimate owner is a bank or financial company, or an insurance company; UO – pension: the ultimate owner is a mutual fund or pension fund, or a nominee/trust/trustee from the pension fund; UO – VC/PE: the ultimate owner is a venture capital or private equity firm; UO – industrial the ultimate owner is an industrial conglomerate (corporations). Source: Orbis.
Supervisory board	Dummy variable which equals one if the subject company has a supervisory board, and zero otherwise. Source: Orbis.
Largest owner cash flow rights	The percentage ownership of the single biggest owner (by voting power) of the company. Source: ASSET4 (Datastream).
Entrenchment index	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a staggered board (the terms of board members are uniform), and (5) other anti-takeover provisions. Entrenchment Index 2 has the similar composition as Entrenchment Index 1, except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). Missing values are treated as zeros. Source: ASSET4 (Datastream).
	VI. Financial Performance and Constraints
ROA	Return on assets: net income divided by total assets. Source: Compustat.
Fin. Constraints	Measured by the ratio of the change in short-term investment to the change in operational cash flow. Source: Compustat.
Interest coverage	Earnings before interests and taxes (EBIT) divided by interest expenses. Source: Compustat.
Financial slack	Current ratio, calculated as the current debts divided by current assets. Source: Compustat.
Sales growth rate	One-year annual growth rate of sales revenue of the firm. Source: Datastream.
Dividend payout ratio	Rolling 12 month dividend per share (adjusted). It is intended to represent the anticipated payment over the following 12 months and for that reason may be calculated on a rolling 12-month basis, or as the "indicated" annual amount, or it may be a forecast. Special or once-off dividends are generally excluded. Dividends per share are displayed gross, inclusive of local tax credits where applicable, except for France, Belgium, Ireland and the UK, where dividends per share are displayed net. Source: Datastream.
CapEx/sales	The ratio of capital expenditure to annual sales revenue. Source: Datastream.
Tobin's Q	Source: Datastream.

Chapter 2. Socially Responsible Firms

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ABSTRACT

In the corporate finance tradition starting with Berle & Means (1923), corporations should generally be run so as to maximize shareholder value. The agency view of corporate social responsibility (CSR) considers CSR as a managerial agency problem and a waste of corporate resources, since corporate insiders do good with other people's money. We evaluate this agency view using large-scale datasets with global coverage (59 countries) on firm-level corporate engagement and compliance with respect to environmental, social, and governance issues. Using an instrumental variable approach, we document that CSR ratings are higher for companies with fewer agency problems (using standard proxies such as having lower levels of free cash flow and higher dividend payout and leverage ratios). Moreover, CSR is associated with increased executive pay-for-performance sensitivity and the maximization of shareholder value.

Key words: corporate social responsibility, agency problems, value enhancement, corporate governance

JEL codes: G30, G32, M14

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"If the unity of the corporate body is real, then there is reality and not simply legal fiction in the proposition that the managers of the unit are fiduciaries for it and not merely for its individual members, that they are… trustees for an institution [with multiple constituents] rather than attorneys for the stockholders."

E. Merrick Dodd, Jr. Harvard Law Review, 1932

Introduction

The desirability of corporations engaging in "socially responsible" behavior has long been hotly debated among economists, lawyers, and business experts. Back in the 1930s, two American lawyers, Adolf A. Berle Jr and E. Merrick Dodd Jr., had a famous public debate on the issue of "to whom are corporations accountable?" Berle argued that the management of a corporation should only be held accountable to shareholders for their actions whereas Dodd argued that corporations were accountable to both the society in which they operated and their shareholders (Macintosh, 1999). The lasting interest in this debate reflects the fact that the issues it raises touch on the basic role and function of corporations in a capitalist society.

Two general views, often reflecting the issues raised in the Berle-Dodd debate, on corporate social responsibility (CSR) prevail in the literature. The CSR "value-enhancing view" argues that socially responsible firms, such as firms that promote efforts to help protect the environment, promote social equality, improve community relationships, can and often do adhere to value-maximizing corporate governance practices. Indeed, well-governed firms are more likely to be socially responsible. In short, CSR can be consistent with shareholder wealth maximization as well as achieving broader societal goals. Some proponents of the value-enhancing view further argue that firm value maximization can incorporate stakeholder value, and not merely shareholder value (e.g., Edmans, 2011; Deng, Kang, and Low, 2013). The opposite view on CSR begins with Milton Friedman's (1970) well-known claim that 'the only social responsibility of corporations is to make money'. Extending this view, several researchers argue that CSR is often simply a manifestation of managerial agency problems inside the firm (Benabou and Tirole, 2010; Cheng, Hong, and Shue, 2013; Masulis and Reza, 2014) and hence problematic ("agency view"). That is to say, socially responsible firms tend to suffer from agency problems which enable managers to engage in CSR that benefits themselves at the expense of shareholders (Krueger, 2013). Furthermore, managers engaged in time-consuming CSR activities may lose focus on their core managerial responsibilities (Jensen, 2001). Overall, according to the agency view, CSR is generally not in the interests of shareholders. Friedman even suggested that to think that business should do anything other than

making a profit is to "harm the foundations of a free society" (1970). Of course, reality might lie somewhere between the value-enhancing and agency views of CSR. Some CSR related corporate policies may be shareholder value-enhancing whereas others may be driven by agency problems.

The empirical literature testing these two views is mixed and thus has left the issues raised in the Berle-Dodd debate largely unresolved. For instance, a number of papers document that firm participation in certain social issues—such as not engaging with 'sin' industries, avoiding nuclear energy, and charity giving—is negatively associated with shareholder wealth maximization (e.g., Hillman and Keim, 2001; Brown, Helland, and Smith, 2006; Navarro, 1988; Brammer and Millington, 2008; Di Giuli and Kostovetsky, 2013). In a recent study based on the KLD dataset, Cheng et al. (2013) find empirical evidence supporting the argument that managers of large US firms enjoy private benefits from investing in CSR. On the other hand, other papers document – largely using the same KLD dataset – that a higher CSR score is on average associated with lower idiosyncratic risk and a lower probability of financial distress (Lee and Faff, 2009; Goss, 2009), a lower cost of capital (Goss and Roberts, 2011; El Ghoul, Guedhami, Kwok, and Mishra, 2011; Dhaliwal, Li, Tsang, and Yang, 2011; Albuquerque, Durnev, and Koskinen, 2013), more positive sell-side analysts' recommendations (Ioannou and Serafeim, 2010a; Bushee, 2000; Bushee & Noe, 2001; Eccles, Krzus, and Serafeim, 2011), and higher abnormal returns and long-term post-acquisition returns (Deng et al., 2013).

The CSR empirical literature to date has two major limitations. First, much of the literature is largely focused only on the *ex post* effects of CSR. That is, the principal research focus is measuring shareholder reactions' to CSR as captured by abnormal stock returns (e.g., Dimson, Karakas, and Li, 2013), the cost of capital (e.g., El Ghoul et al., 2011), and ownership changes (e.g., Cheng et al., 2013), or on the financial consequences of CSR spending (e.g., Lee and Faff, 2009). However, both the value-enhancing and agency views are concerned to a significant extent with managerial incentives, which are *ex ante* in nature. More specifically, in the agency view, the managerial incentive to engage in CSR is a reflection of the generally poor incentives of managers at socially responsible firms, i.e. these firms suffer from agency problems. These agency problems then manifest themselves in the form of CSR activities. Conversely, according to the value-enhancing view, well-run firms, meaning firms where management is generally properly incentivized, will tend to have managers engaging in appropriate CSR conduct. In this way, the debate over CSR connects up with the general corporate finance literature on agency problems and *ex ante* managerial incentives, a fact that we will exploit in our empirical analyses. Second, the objective function being maximized is often implicitly assumed in the literature to be exclusively shareholder wealth maximization, without any independent importance being placed on third party effects. In this

regard, it is worth noting that in many countries firms are required by law or social norms to be not only concerned with shareholders. Given differing opinions concerning the appropriate objective function within the literature, an important research question is whether well-governed firms are more likely to be socially responsible.

In this paper, we take a comprehensive look at the CSR agency and value-enhancing views around the globe. By means of a rich and partly proprietary CSR dataset with global coverage across a large number of countries and covering thousands of the largest global companies, we test these two views by examining whether traditional corporate finance proxies for firm agency problems, such as capital spending cash flows, managerial compensation arrangements, ownership structures, and country-level investor protection laws, account for firms' CSR activities. While other studies using within-country quasi-experiment approach (e.g., Hong, Kubik, and Scheinkman, 2012; Cheng et al., 2013) focus on the *marginal effect* of variation in agency problems, our data and empirical setting allow us to examine its *average effect*. Based on this comprehensive analysis we fail to find evidence that CSR conduct is a function of firm agency problems. Rather, consistent with the value-enhancing view, well-governed firms are more likely to be socially responsible. CSR is associated with increased managerial pay-for-performance and maximization of firm value, which suggests that CSR in general is not inconsistent with shareholder wealth maximization.

The paper proceeds as follows: Section II identifies several proxies drawn from the corporate finance literature for firm agency problems and their possible relationship to CSR. Section III describes the samples and specifications we will use when testing the CSR agency view. Section IV reports and discusses the empirical results. Section V concludes.

Agency Theory and CSR: Hypotheses

Agency problems manifest themselves through non-value-maximizing investment choices (Shleifer & Vishny, 1989; La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 2000) and managerial pay that is not tied to performance (Bebchuk and Fried, 2003). Economists have focused on possible mechanisms constraining these agency problems, such as contract design, incentive systems, and internal controls (see Holmstrom and Tirole (1989), Prendergast (1999), and Bebchuk and Weisbach (2010) for reviews), as well as on external mechanisms such as labor, capital, and

product markets (Fama, 1980; Fama and Jensen, 1983), and institutional arrangements, including legal rules (La Porta, Lopez-de-Silanes, Shleifer, and Vishny, 1997, 1998, 2000, 2002).

To assess whether CSR should be regarded as an agency cost or a value-enhancing strategy, we try to explore the underlying mechanisms based on *ex ante* managerial incentives, which connects the quality of corporate governance to CSR. More specifically, in better governed firms, managers are better incentivized and their interests and behavior are more aligned with that of shareholders. Therefore, under the value-enhancing view if CSR is beneficial to shareholders, it is also more likely to be carried out by managers. In addition, if CSR improves firm performance, managers are compensated for good performance and thus also have greater incentive to engage in CSR. That is, good corporate governance induces more CSR activities. In contrary, under the agency cost view CSR is detrimental to shareholder value but is more favored by managers to extract private benefits, i.e., bad corporate governance induces more CSR activities. We further elaborate these mechanisms below.

Ex Ante Agency Problems

First, we will explore in our analysis hypotheses based on agency theory at the firm-level in the spirit of Jensen and Meckling (1976) and Jensen (1986), which has played a foundation role in the corporate governance literature (Morck & Yeung, 2005). Agency theory focuses on managers' ex-ante incentives. According to this literature, agency problems can be particularly acute when the firm generates substantial free cash-flows in excess of those required to finance all positive NPV projects (Servaes and Tamayo, 2014) leading to serious agency problems (Berle and Means, 1932; Jensen and Meckling, 1976; Myers and Rajan, 1998). Since cash is the most liquid among all corporate assets, it provides managers with the most latitude as to how and when to spend it, and its value is the most likely to be influenced by agency conflicts between managers and shareholders (Masulis, Wang, and Xie, 2009). When liquid assets are abundant, firms do not have to submit to the scrutiny of the capital markets that occurs when new capital is needed, and the managers have discretion to invest the funds as they please. Firms' capital expenditure decisions are another channel of empire building and private benefits extraction (Bae, Kang, and Wang, 2011), and it directly reflects whether the firm has abundant cash to spend. On the other hand, dividends (La Porta et al., 2000; Morck and Yeung, 2005) and debt (Jensen and Meckling, 1976; Jensen, 1986), given their demands on cash flow, can constrain managers from diverting cash or committing cash to unprofitable projects that generate private benefits to insiders. When cash is tight managers will be motivated to run the firm efficiently, which can increase shareholder value (La Porta et al., 2000).

This literature focusing on free cash flow creating an agency problem suggests a causal effect running from corporate liquidity and leverage to managerial incentives to divert firm value (Jensen, 1986). This suggests the following hypothesis reflecting the CSR agency view: a higher level of CSR is induced by higher cash holdings, free cash flows, and capital expenditure, and lower leverage and dividend payout. This hypothesis is consistent with the contention that CSR usually requires long-term investments that do not necessarily contribute to shareholder value maximization but do contribute to managers' private benefits of control (Cheng et al., 2013). In contrast, the CSR value-enhancing view suggests the opposite hypothesis: CSR should be associated with fewer agency concerns and better managerial decisions, thus higher leverage and lower liquidity (cash and free-cash flows) (Krueger, 2013). The latter hypothesis is consistent with the agency theory that when cash is tight, the firm tends to be better governed as the manager is motivated to run the firm efficiently. Both hypotheses, it is worth noting, are based on the ex-ante incentives of managers as identified in the corporate finance literature: the abundance or scarcity of cash creates bad or good managerial incentives.

Second, we consider this *ex ante* agency literature from a managerial incentive-performance perspective in the spirit of Jensen and Murphy (1990), and hence investigate hypotheses concerning the relationship between CSR and managerial pay-for-performance. As argued by Masulis, Wang, and Xie (2009), executive compensation is among the central issues in the debate over the effects of weak corporate governance. In the corporate finance literature, executive compensation helps align the interests of managers and of shareholders, and higher pay-performance sensitivity leads to less severe agency problems (and thus shareholder value-enhancement). On the other hand, weak pay-for-performance sensitivity has been widely regarded as a major form of incentive misalignment and a symbol of bad governance (Masulis *et al.*, 2009). Therefore, weak managerial pay-for-performance can be viewed as a proxy for agency problems at the firm ("pay without performance", Bebchuk and Fried, 2003). Accordingly, the CSR value-enhancing view would hypothesize that CSR is associated with stronger pay-for-performance sensitivity whereas the agency view would predict the opposite.

Investor Protection Laws and CSR

Of course, CSR and agency problems can emerge simultaneously as they are both choices of the firm in some sense. This simultaneity (or endogeneity) creates an obvious empirical challenge for investigating the relationship between CSR and firm agency problems. Several studies resort to policy and market-wide shocks as quasi-experiments to help identify a causal relationship between CSR and agency proxies (e.g., Hong et al., 2012; Cheng et al., 2013; Flammer, 2013), but

this approach is hard to apply in a multi-country context. Therefore, we employ exogenous variation in country-level *investor protection* laws as instrumental variables for firm-level agency problems. The relevant country-level investor protection laws are those that provide legal protection of shareholder rights (La Porta et al., 2000), but do not directly regulate the protection of stakeholders other than shareholders. Broadly speaking, the investor protection laws that aim at addressing agency problems and investor expropriation, concern corporate decision-making and voting (corporate law), information disclosure in securities transactions (securities law), and regulation of related parties transactions (anti-self-dealing law), as well as the effectiveness of their enforcement (La Porta et al., 2006; Djankov et al., 2008).

If these country-level investor protection laws help constrain firm-level agency problems, then being a firm in a country with such laws can be viewed as a proxy for fewer firm-level agency problems. Just as with free-cash flow, leverage, pay-for-performance, and dividend payouts, we will therefore use country-level laws as a proxy for firm-level agency problems in exploring the CSR agency and value-enhancing views. Again, the CSR value-enhancing view would hypothesize that firms in countries with strong legal protections will engage in more CSR relative to firms in countries with weak protections. The CSR agency view would predict the opposite.

Large Shareholders and CSR

In countries other than the United States, the U.K., and Australia, large firms typically have shareholders that own a significant fraction of equity (La Porta, Lopez-de-Silanes, & Shleifer, 1999; Claessens, Djankov, Fan, & Lang, 2002). It is worth noting that ownership patterns are very stable in general, especially outside the United States, and are shaped largely by the companies' histories and their founding/controlling families (La Porta et al., 2002). Therefore, large shareholders' ownership concentration could also be considered as largely exogenous to particular decisions of a firm (Faccio and Lang, 2002).

The association between the level of concentrated ownership and firm-level agency problems is theoretically unclear. On the one hand, ownership in the hands of one or a few large shareholders could create agency problems between controlling and minority shareholders (Bozec & Laurin, 2008; Bebchuk & Weisbach, 2010). The concern is diversion of firm value from the minority to the controlling shareholder. The possibility of diversion, and hence this type of agency problem, can be heightened as the firm's free cash flow increases and leverage and dividend payouts decrease (as there is now more to divert). On the other hand, the controlling shareholders can effectively steer manager decision making, and hence also function as a mechanism to curb managerial agency problems. In either way, however, large shareholders' ownership can shape the degree to which

agency problems are present within the firm, and can also be used as proxy for firm-level agency problems. Once again, country-level laws (corporate, securities, and anti-self-dealing laws) can help constrain the agency problem created by controlling shareholders and thus can be used a proxy for agency costs for this reason.

Data and Methodology

CSR Data

Our data provide information on both the legally mandated and the voluntarily initiated aspects of CSR. Our primary data on CSR are from MSCI's Intangible Value Assessment (IVA) database and the Vigeo corporate ESG database. Both databases are built by means of different proprietary data sources and employ different rating metrics, which enables us to cross-validate our results. The IVA indices measure a corporation's environmental and social risks and opportunities, and are compiled using company profiles, ratings, scores, and industry reports, and are available from 1999 to 2011. Its coverage comprises the top 1,500 companies of the MSCI World Index (expanding to the full MSCI World Index over the course of the sample period); the top 25 companies of the MSCI Emerging Markets Index; the top 275 companies by market cap of the FTSE 100 and the FTSE 250 (excluding investment trusts); and the ASX 200. For this large sample with global coverage, MSCI constructs a series of 29 Environmental, Social, and Governance (ESG) scores[25] covering the following categories: (1) Strategic governance, which relates to traditional corporate governance concerns and whether the firm adopts or has the ability to adopt certain strategic governance strategies; (2) Human capital, which concerns labor relations as well as employees' motivation and health safety; (3) Stakeholder capital, which concerns relationships with customers, suppliers, and local communities; (4) Products and services that relates to product safety and intellectual capital product development; (5) Emerging markets, which concerns issues related to human rights, child and forced labor, and oppressive regimes arising from firms' trade and operations in emerging markets; (6) Environmental risk factors, which include environmental-based liabilities based on operating risks, industry-specific carbon

[25] A key ESG issue is defined as an environmental and/or social externality that has the potential to become internalized by the industry or the company through one or more of the following triggers: (a) Pending or proposed regulation; (b) A potential supply constraint; (c) A notable shift in demand; (d) A major strategic response by an established competitor; (e) Growing public awareness or concerns. Once up to five key issues have been selected, analysts work with sector team leaders to make any necessary adjustments to the weightings in the model. Each key issue typically comprises 10-30% of the total IVA rating. The weightings take into account the impact of companies, their supply chains, and their products and the financial implications of these impacts, illustrated in the Appendix. On each key ESG issue, a wide range of data are collected to address the question: "To what extent is risk management commensurate with risk exposure?"

risks, and performance in leading sustainability risk indicators; (7) Environmental management capacity, which includes environmental audit, accounting, reporting, training, certification, and product materials; (8) Environmental opportunity factors such as the firm's competence in embedding certain environmental opportunities in their strategies. Among all these 29 sub-dimensions, *Labor Relations*, *Industry-Specific Carbon Risk*, *Environmental Opportunity* categories receive the highest weights in a firm's global rating (they add up to 80%). Furthermore, the IVA ratings are complemented with the *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social* R*ating* scores, which are provided by RiskMetrics Group (now part of MSCI) and capture the environmental and social aspects of CSR, respectively. Companies in the sample are rated from CCC to AAA, which we then transform into numeric ratings from 0 to 6. The whole IVA sample (including the RiskMetrics ratings) covers 91,373 firm-time observations from 59 countries.

The Vigeo corporate ESG data set focuses more on CSR compliance, as it applies a check-the-box approach to rate how a firm and the country where it operates comply with the conventions, guidelines, and declarations by international organizations such as UN, ILO, and OECD. The Vigeo ratings cover six evaluation categories: (1) environment, (2) human rights, (3) human resources, (4) business behavior (which concerns relationship with suppliers and customers), (5) community involvement, and (6) traditional corporate governance. These six domains are further broken down into 38 ESG criteria (sustainability drivers and risk factors) based on universally defined social responsibility objectives and managerial action principles. The range of indices used by Vigeo include: Euronext Vigeo World 120, Euronext Vigeo Europe 120, Euronext Vigeo Eurozone 120, Euronext Vigeo US 50, Euronext Vigeo France 20, Euronext Vigeo United Kingdom 20 and Euronext Vigeo Benelux 20, and are updated every six months. The whole Vigeo sample covers 7,048 firm-time observations from 28 countries and 36 sectors. Both the MSCI sample and the Vigeo sample cover the well-established equity indices of the largest companies across the world, rather than just select a specific sample of firms that engage in CSR.

An important note is that for both the MSCI and Vigeo samples, firms are rated relative to their industry peers from both domestic and international markets, thus the ratings do not depend on the cross-country difference in jurisdiction, regulation, and the local CSR situation. This makes our cross-country data more credible and helps guaranteeing that our CSR ratings are not biased by country-specific characteristics. It also largely eliminates the concern that optimal CSR investment is country specific, and thus gives some credibility to using country-level IVs for firm-level endogenous variables. In addition, we supplement our proprietary CSR data with the publicly available ASSET4 data from Thomson Reuters—also with global coverage and the similar rating method by comparing with global industry peers—to further verify our results. The detailed

descriptions of the MSCI IVA and the Vigeo ESG samples are shown in Appendix 1a and 1b, and their country distributions (as well as that of ASSET4) are shown in Appendix 2a-c.

Finally, we obtained a cross-sectional dataset on country-level sustainability ratings from Vigeo, which rates each country based on the laws and regulations that fulfill the country's (1) environmental responsibility (commitment to and performance in environmental protection), (2) institutional responsibility (rule of law and governance), and (3) social responsibility and solidarity (commitment to protecting human rights, political and economic freedom, and other social issues). These three country-level domains echo the firm-level 'E', 'S', and 'G', respectively. The metrics of the Vigeo country-level sustainability index and the MSCI firm-level ESG ratings are different: the latter measures corporate CSR engagement and compliance, whereas the former measures a country's legal and regulatory framework in sustainability and is thus not just an aggregation of firm-level CSR data (see Appendix 3 for definitions).

Empirical Strategy

Our empirical strategy is to test the effects of proxies for agency problems on CSR. Based on our earlier discussion of the academic literature, we utilize five such agency proxies (putting aside for the moment managerial compensation): *a.* capital expenditure (CapEx); *b.* cash holdings; *c.* free cash flow measured as EBIT after tax minus the change in net assets (CapEx, minus depreciation and amortization, plus or minus the change in net working capital); *d.* dividend payout ratio; and *e.* leverage, measured as the ratio of total debt over total equity. Higher values of the first three variables (*a*—*c*) are related to agency costs caused by excessive capital spending, and higher values of the last two (*d* and *e*) relate to mechanisms that can curb managerial agency problems.

Of course, the issue of endogeneity is as always important to consider. Country-level laws and ownership structures, as discussed, can help address this difficult issue by serving as instrumental variables (IV). The effects of law and ownership on our five agency proxies have been well documented in the literature. For example, countries with better investor protection (e.g., common law countries) have significantly fewer cash holdings (Dittmar, Mahrt-Smith, & Servaes, 2003), lower free cash flows, lower investment sensitivity to cash flows (McLean, Zhang, & Zhao, 2012), higher leverage adjustment speeds (Öztekin & Flannery, 2012), and higher payouts (La Porta et al., 2000). Given this, we conduct a two-stage least square (2SLS) model in which the agency proxies are regressed on country-level laws and ownership concentration in the first stage. Subsequently, the predicted value of each proxy enters into the second stage regression where CSR is the dependent variable. This model also includes other firm-level covariates (ROA, equity market-to-book ratio, interest coverage, short-term investment to cash flow sensitivity, financial slack as

measured by the current ratio). It should be noted that higher cash holdings, free cash flows, and more capital expenditures do not necessarily mean higher agency costs, as long as there are sufficient investment opportunities. The Jensen (1986) argument predicts the firms with larger free cash flow but with *limited investment opportunities* will suffer from the agency problem of misusing the money. Therefore, controlling for investment opportunities as proxied by Tobin's Q (market-to-book ratio of assets) in all our regressions in necessary. The approach of using country-level variables as IVs for firm-level endogenous variables has been applied in many studies (for example, Ayyagari, *Demirgüç-Kunt*, & Maksimovic, 2011) that consider cross-country variations in the dependent variables (CSR activities in our case).

The country-level legal protection data come from well-established sources. Regarding the country-level laws, we use the anti-director rights index (ADRI) which was first developed by La Porta et al. (1998) and revised in Djankov et al. (2008) and Spamann (2010). For securities law, we use the private enforcement index concerning information disclosure and liabilities standard developed by La Porta et al. (2006). Since public enforcement was not found to play a significant role in investor protection as in La Porta et al. (2006), we do not use it as an IV (the Sargan-Hansen test also suggests that it is not a valid IV). For the regulations on self-dealing, we use the anti-self-dealing index (ASDI) developed by Djankov et al. (2008), which contains *ex ante control of self-dealing*, ex *post control of self-dealing*, and *public enforcement* variables. As suggested by Djankov et al. (2008), the ASDI is better grounded in theory than the anti-director rights index, and focuses more on insiders' related-party transactions. We further include the one-share one-vote index (mandatory proportionality of voting and cash flow rights) and the mandatory dividend index (percentage of net income that the company law or commercial code requires firms to distribute as dividends among ordinary shareholders) as used in Spamann (2010). We conducted the Sargan-Hansen over-identification test on the overall validity of our instrumental variables: almost all test statistics fail to reject the null hypothesis that the IVs are valid. Therefore, our identification strategy and the results are robust. Given that our CSR data is constructed in a way so as to be comparative to industry peers (that is, the industry effect has already been eliminated by construction), we do not control for industry fixed effects but rather cluster standard errors at the industry level.

Turning to managerial compensation, we test the relation between CSR and managerial pay-for-performance by regressing executive pay on the CSR indicators, the performance indicators, and their interactions, along with other firm-level and country-level covariates. In the literature, executive compensation is usually measured as both the cash-based pay (salaries and bonuses) and equity-based pay (stock options, restricted stock of Long Term Incentive Plans). The average total compensation of all available executives on BoardEx's Compensation Reports is taken as our

dependent variable. The main independent variables include the different ESG ratings, Tobin's Q, and their interactions. Following the traditional literature on the determinants of executive compensation (e.g., Gomez-Mejia, Larraza-Kintana, and Makri, 2003), we also include a set of control variables, such as return of assets (*ROA*), the number of employees (*Ln(employee)*) as a proxy for the physical size of the company, the leverage ratio as proxy for creditors' involvement into the firm, the number of analysts following the company (*Ln(analyst coverage)*) as a proxy for market discipline, and the percentage of a company's shares owned by the largest shareholder. Industry- and time- fixed effects and controlled for in all regressions. The descriptive statistics of our variables are provided in Table 1.

[Insert Table 1 about Here]

We correlate the country-level sustainability ratings—the country's environmental responsibility, institutional responsibility, and social responsibility and solidarity—with the firm-level CSR ratings from the MSCI IVA, the Vigeo ESG, and the ASSET4 ESG databases. We do this so as to see whether our firm-level CSR measurements are significantly related to country-level sustainability ratings. The Pearson correlations coefficients between these firm- and country-level sustainability indices are shown in Table 2. On average, the coefficients are around 20 to 30 percent, which are high given that the country-level and the firm-level ratings use completely different rating metrics. The correlation between Vigeo's 'human resource concern' and 'country institutional responsibility' is as high as 47 percent, which implies that corporate behavior benefiting its employees and properly putting its human resources into service is largely governed by the rule of law and country governance. Such high correlations imply that our firm-level CSR measurements are in fact closely related to country-level societal sustainability ratings.

We also measure for a US subsample the correlation between our firm-level CSR ratings with Bebchuk, Cohen, & Ferrell's (2009) entrenchment index (the E-index) which is believed to drive corporate governance quality. The E-index consists of 6 governance provisions—staggered board, limits to shareholder amendments of the bylaws, supermajority requirements for mergers, supermajority requirements for charter amendments, poison pills and golden parachutes. The correlations between the E-index and the CSR scores for our US subsample are rather low (merely 6%) and negative, which suggests that CSR is not adopted by an entrenched management and hence expresses an agency problem. We perform a more thorough analysis of this issue in the regression analysis of the next section.

[Insert Table 2 about Here]

Results

Regression Results

In Table 3, we examine the relationship between CSR and our five agency proxies: cash holdings, free cash flow, CapEx, dividend payout ratio, and leverage. The agency view predicts a positive relation between CSR and the first three proxies and a negative relationship for the last two. The value-enhancing view on CSR predicts the opposite.

Panel A shows the regression results for the MSCI IVA sample, and Panel B shows those for the Vigeo ESG sample. In both panels, the five proxies are instrumented by the country-level legal shareholder protection measures and the firm-level ownership concentration. One important note is that the correlations between the five proxies are rather small, ranging from -0.8% to 23% for both the MSCI IVA and the Vigeo ESG samples, thus mitigating multicollinearity concerns. In the second stage, CSR ratings are regressed on the five "predicted" agency proxies as estimated from the first stage, and on the other control variables, with bootstrapping-adjusted standard errors. As we are interested in testing the CSR agency view (in relation to the CSR value-enhancing view), we only report the second-stage results. The dependent variables in Panel A are the *Overall IVA Ratings* (covering all ESG dimensions), the *RiskMetrics EcoValue Ratings* (focusing on ecological efficiencies), the *RiskMetrics Social Ratings* (focusing on social issues), as well as the three sub-indices that receive the highest weights: *Labor Relations*, *Industry-specific Carbon Risks*, and *Environmental Opportunities*, and three aggregate subscores: *Strategic Governance* (including traditional governance), *Human Capital*, and *Stakeholder Capital*. We switch between using ROA and Tobin's Q (measured by the equity market-to-book ratio), and between unwinsorized and winsorized dividend payout ratio to cross-validate our results. The dependent variables in Panel B are the *Overall Vigeo ESG*, *Environment*, *Human Resource*, *Human Rights*, *Community Involvement*, *Customers & Suppliers*, and *Corporate Governance*.

In Panel A, the coefficients on the three liquidity-focused agency proxies—cash holdings, free cash flows, and capital expenditures—are mostly negative and statistically significant, whereas the coefficients on the financial constraint-focused agency proxies – dividend payouts and leverage are mostly positive. These findings therefore do not support the CSR agency view. The economic significance is large, although it should be interpreted with caution, because the IVs mostly are at the country-level (within a range of 0-5) while the endogenous variables are at the firm-level (Ayyagari et al., 2011): one percent decrease in the cash holdings to assets ratio or in free-cash flows to assets ratio leads to an average change of more than half a grade in the ESG ratings, and

a one percent change in the CapEx to assets ratio induces a 1 grade change in the ESG rating in most cases. For Panel A, we find strong support for the 'doing good when doing well' hypothesis, as the coefficients on either ROA or market-to-book ratios are mostly positive. In addition, the financial constraint proxies are mostly negatively correlated with the ESG ratings, while financial slack (as measured by the current ratio) are mostly positively associated with the ESG ratings. Similar patterns are observed in Panel B where the Vigeo ESG ratings are the dependent variables, and time fixed effects are controlled for—at the rating date level for columns (1)—(5) and at the year-level for columns (6)—(7) so as to check the robustness. Once again, these results do not support the CSR agency view. Again, we are cautious in interpreting the economic magnitudes of coefficients from 2SLS, given that we use country-level variables as IVs. The main focus is on the sign of coefficients which directly links to our theoretical predictions.

We note that for human resources and human rights, country-level legal protection indices seem to be weak instruments as the p-values of the Sargan-Hansen test are below 0.1, which may indicate that the legal protection of investor rights can also affect human resource and human rights through other channels than the agency channel. However, the results for other CSR indicators are mostly consistent with the previous results, with the economic effects being large.

In terms of causation, the interpretation of our results ought to be done with care. Still, given our identification strategy and the Sargan-Hansen's test statistics which support the validity of our IVs, we tend to interpret them as follows: well-governed firms suffer less from agency concerns: when cash is tight—less cash reserves, free cash flows and capital spending, and more dividend payouts and interest payouts— managers are motivated to run the firm more efficiently and care more about the long run through engaging in CSR activities, and are more willing to disburse earnings to shareholders and other stakeholders.

[Insert Table 3 about Here]

In Table 4 we examine the relationship between CSR, executive compensation, and firm performance. The dependent variable is the average compensation of executives at the firm, and the independent variables include CSR scores, Tobin's Q, and their interaction term, together with other control variables that are used in the previous literature on executive compensation. Again, Panel A reports the results with CSR measured by MSCI's IVA ratings, while Panel B reports the results with CSR proxied by Vigeo's ESG ratings. As mentioned before, the agency view argues that CSR activities will be associated with reduced managerial pay-for-performance sensitivity, and thus predicts a negative effect of the interaction between CSR and performance on managerial pay.

The value-enhancing view argues that CSR strengthens pay-for-performance, and thus predicts a positive sign of the interaction term.

The results on pay-for-performance again reject the agency view, but support the value-enhancing view. The coefficients on the interaction terms between CSR (overall IVA, environmental, social) performance and firm valuation (Tobin's Q) are consistently positive, which indicates that engaging in CSR is actually associated with increased pay-for-performance sensitivity. The economic effects are non-trivial: the effects of performance on pay (scaled by total assets) in more socially responsible firms (with one-grade higher in CSR ratings) are on average 10% higher than less socially responsible firms. The coefficient on the interaction term is not statistically significant in the regression with social ratings with the CSR measure, which may potentially imply that social issues such as human rights are relatively peripheral to firm performance, thus are not priced in managerial compensation. The coefficients on leverage are mostly negative, which confirm to the disciplinary role of debt: leverage can reduce the likelihood of managerial entrenchment through monitoring by creditors and the threat that the CEO loses his job following bankruptcy-induced liquidation.

[Insert Table 4 about Here]

Our interpretation of these regression results largely hinges on the assumption that our instruments are valid, that legal protection of shareholder rights and ownership concentration affect CSR through addressing agency concerns, rather than via other channels. With respect to our instruments, one may argue—as do, for example, Demsetz and Lehn (1985) and Demsetz and Villalonga (2001)—that ownership structure might also be endogenously determined and is thus also a choice variable. To deal with the potential endogeneity of ownership to corporate policies, we also instrument the ownership variable with legal protection indices that were used before—ADRI, ASDI, private enforcement of securities law, the revised one-share one-vote rule (mandatory proportionality of voting and cash flow) index, the revised mandatory dividend index, and the direct ownership of large shareholders. Reverse causality is not of concern because legal protection is clearly exogenous to CSR. In unreported tests, the results are very similar to those in Table 3, in that liquidity-focused agency proxies are mostly negatively correlated with CSR, while the coefficients on dividend payouts and leverage have a positive sign.

Even if legal protection were a weak instrument and were to affect CSR through unobservable channels other than the agency channel (for example, through difficult to quantify cultural norms), the coefficients' signs still would not support the agency view. Even if other unobservable factors exist, the CSR agency view will still predict a positive and significant correlation between the

abundance of cash and CSR; as long as the coefficients are not positive and significant, the agency view is unsubstantiated. As a robustness check, we more directly test the agency view in relation to the value-enhancing view without an IV setting in the next section.

Country-level investor protection and firm-level CSR

As mentioned above, although our instruments pass the Sargan-Hansen test, one may still question whether the legal protections of shareholder rights at the *country level* are really valid instruments for the agency problems of cash at the *firm level*. If country-level factors can induce firm-level agency conflicts through multiple channels, an omitted variable bias may still exist making causal interpretation of the relationship between cash flows and CSR less credible.

As the main purpose of this paper is to evaluate whether CSR investments result from agency problems, we also measure the "direct" correlation between legal protection and CSR (setting aside for a moment the instrumental approach as performed in previous section, which may be considered as problematic). The reason is straightforward: in countries with stronger legal protections of shareholder rights, agency problems are also likely to be lower. If CSR activities are due to agency problems, they should also be lower. That is, the CSR agency cost view predicts a negative association between legal protection and CSR. To test this hypothesis, we regress CSR ratings on various legal protection indices and report the results in Table 5. We proxy the degree of shareholder-orientation embedded in company law by means of the ADRI index as adjusted by Spamann (2010). The legal rules on constraining insiders' self-dealing are proxied by the ASDI and the public enforcement index, developed by Djankov et al. (2008). We do not report the parameter estimates of the control variables which comprise cash holdings (scaled by total assets), leverage ratio, ROA, Tobin's Q, financial constraints, interest coverage, current ratio, ownership dispersion (the Bureau van Dijck's independence indicator), as well as industry- and time-fixed effects, to save space.

According to the CSR agency view, stronger legal protection of shareholder rights, as proxied by ADRI (the aggregation of six shareholder protection rules) and other legal indices, should reduce the incentive and ability of corporate insiders (directors and officers) to extract private benefits through CSR-related spending. In contrast, the CSR value-enhancing view predicts that CSR-spending is positively related to shareholder protection, as managers under stricter laws are motivated to generate more shareholder value through CSR projects. Both company law (the adjusted ADRI) and anti-self-dealing regulation (ASDI) in fact significantly, positively predict firms' CSR engagement (Panel A, the MSCI IVA sample). As a robustness test, we include the original ADRI from LLSV (1998) and the revised ADRI from Djankov et al. (2008), and

decompose the anti-self-dealing index into *ex ante private control* which concerns the approval process and mandatory extensive disclosure, and *ex post private control* which concerns the ease of proving wrongdoing (for definitions, see the Appendix and Djankov et al. (2008)), into our models and find that our above results survive. The persistent positive correlations between corporate law and CSR suggest that when legal rules are stronger in disciplining corporate behavior towards "good conduct" for investors, especially minority shareholders (as both ADRI and anti-self-dealing indices mainly concern minority shareholder protection against corporate insiders and controlling shareholders), firms are also more likely engage in social responsibilities. Furthermore, the coefficients of explanatory variables of these tests do not differ much from those in the 2SLS regressions, indicating that agency concerns are the main/only channel through which legal protection of shareholder rights affect CSR. In Panel B where the dependent variables are the Vigeo ESG ratings that focus more on CSR compliance (rather than on the CSR practice or engagement of Panel A), company law (the adjusted ADRI) still plays a positive role, but the anti-self-dealing rules do not. The insignificance of the coefficients on the anti-self-dealing index and the public enforcement of self-dealing index is not that surprising, given that the two indices measure transactions while *compliance* to CSR standards mainly concerns the firm's daily operations, such as sticking to labor regulations and obtaining an ISO14000 certification, rather than (intercorporate) transactions that are measured by the anti-self-dealing index.

[Insert Table 5 about Here]

Large shareholders' ownership and control and CSR

Similar concerns on IV validity may apply to ownership concentration. Therefore, we investigate the direct relationship between large shareholder ownership structure and CSR in this section. The previous tests mostly concern managerial agency problems, but controlling shareholders can also engage in rent extraction which constitutes another type of agency problem ("large shareholder agency problem"). With respect to CSR spending, prior research suggests that large shareholders may have conflicting interests with minority shareholders (Barnea and Rubin, 2010; Benabou and Tirole, 2010; Cheng et al., 2013). However, the existence of both the convergence-of-interest effect and the entrenchment effect (of major shareholders) complicates the relationship between large shareholders' ownership stakes and CSR practice. In general, CSR is costly for shareholders if perceived as an agency problem, and therefore higher cash-flow rights (ownership stakes) should lead - other things equal - to lower CSR expenditure, because large shareholders also internalize the costs of CSR (e.g. McConnell and Servaes, 1990). Consequently, one would expect a negative relationship between large shareholders' ownership and CSR practice

when their ownership stakes are high, which is more likely to be driven by the incentive effect derived from cash flow rights (ownership stakes). Some argue, in contrast, that higher insider ownership makes these insiders more powerful in decision making thus more entrenched, resulting in an increased ability of insiders to overinvest in CSR. Therefore, the relation between large shareholders' ownership and CSR performance is non-monotonic in nature, which makes a direct testing of large shareholders' ownership on CSR difficult to interpret from the agency cost perspective.

One way to circumvent this problem is to disentangle the incentive and entrenchment effects of large shareholders on CSR, which is usually achieved through separating control rights from cash flow rights. Controlling shareholders can establish control over firms with only minimal cash-flow rights (ownership) when a deviation from the 'one share, one vote' rule applies (La Porta et al., 1999; Bebchuk, Kraakman, & Triantis, 2000; Classens, Djankov, and Lang, 2000; Claessens et al., 2002; Faccio and Lang, 2002; Lins, 2003). According to Bebchuk et al. (2000), such separation can create agency costs an order of magnitude larger than the costs associated with a controlling shareholder who also has a majority of the cash-flow rights in her own corporation. A similar approach has been used by Claessens et al. (2002), in which they separate the largest shareholder's voting rights and cash flow rights, and find that firm value increases with the cash-flow ownership of the largest shareholder, consistent with a positive incentive effect, but firm value falls when the control rights of the largest shareholder exceed its cash-flow ownership, consistent with an entrenchment effect.

We test the effects of the largest shareholder's voting rights in excess of its cash-flow rights on CSR and use the ASSET4 sample, which comprises standardized data on largest shareholder's voting rights and cash flow rights for a set of global companies. Our model specifications follow those of Claessens et al. (2002), Morck et al. (1988), and Bebchuk et al. (2009) in that we capture the non-monotonic effects of large shareholders' cash flow rights. What we have done in addition is that we control for country, industry, and year fixed effects (whereas the earlier only controlled for industry dummies). Our main explanatory variables are: Wedge1, which is the difference between the largest shareholder's voting and cash flow rights (voting rights minus cash flow rights), and Wedge2, which is the ratio of voting rights and cash flow rights. The inclusion of both Largest Shareholder Ownership and its square captures the non-monotonic effects of the controlling shareholder. To control for "doing good by doing well", we include the Equity Market-to-Book Ratio as a control but also test other standard control variables (used by Claessens et al. (2002) and Bebchuk et al. (2009)). In view of CSR as a large shareholder agency problem, the controlling shareholders can use their majority voting rights to expropriate minority shareholders by

approving CSR projects that only benefit themselves. Therefore, a positive association between CSR and control wedge is expected under the agency view.

The results from the GLS regressions are shown in Table 6. Some interesting observations can be made: First, throughout all specifications, the coefficients on both Wedge1 and Wedge2 are positive and significant. A ten-percent increase in the different between voting and cash flow rights on average reduces the CSR rating by one. This negative sign does not support the agency view which considers CSR spending as a result of controlling shareholders' entrenchment and expropriation of minority shareholders. Second, the effect of the largest shareholder's ownership seems to be non-monotonic on different aspects of CSR, as the coefficients on largest shareholder's ownership are all negative and significant, while that on the square of ownership are all positive. This is consistent with the previous literature that both incentive and entrenchment mechanisms of controlling shareholders affect corporate outcomes. The simplified specifications (only controlling for equity market-to-book ratio) and the more complex ones (including also other traditional financial controls) yield both qualitatively and quantitatively similar results, although the sample size for the latter shrinks. These results also hold for various ESG subindices which we do not report for reasons of conciseness. In terms of control variables, the positive coefficients on Equity Market-to-Book mostly support the "doing good by doing well" hypothesis. Firm size and year since incorporation also have positive loadings on CSR, indicating that larger and more established companies are more likely to engage in social issues. Overall, the direct effects of controlling shareholder's ownership and control (wedge between voting and cash flow rights) imply that CSR is not likely to be used as a self-serving tool for controlling shareholders to extract private benefits, shirk, or build empires, though large shareholders do reduce their spending on CSR due to the internalization of its costs. This reflects that a CSR policy is expensive, but does not by itself provide support for the agency view.

[Insert Table 6 about Here]

CSR, Agency Problems, and Shareholder Value

Finally, we consider the association between CSR, agency problems and shareholder value altogether in a cross-country setting, which has not been explored in the extant literature of "doing well by doing good". To further explore the role of CSR in facilitating value-enhancement and triangulate our previous results, we test whether CSR could counter-balance the negative effects of agency problems and poor corporate governance on firm value. To do so, we utilize the rich coverage of corporate governance provisions in the ASSET4 ESG sample, and construct a global entrenchment index ("global E-index") as a proxy for poor governance. Our global E-index is

constructed following the structure of the original US-based E-index as in Bebchuk et al. (2009). We have tried our best to mimic the exact construct of the original E-index by applying the same governance provisions across countries; only slight differences relative to the original US index occur due to data availability in Datastream. The provisions in our global E-index include the presence of: (1) a poison pill; (2) a golden parachute; (3) a classified board, (4) other anti-takeover devices, and (5) supermajority requirements for both amending charters and amending bylaws.[26] It is worth noting that 'classified board' is a general term which refers to the situation that the terms of board directors can be different from each other, while another concept, namely 'staggered board', refers to the situation when the terms of board directors are uniform. Though these are different entries in Datastream, such difference does not seem to matter for our regression results.

We conduct our test on a panel dataset of more than 4,700 largest public firms from 60 countries in the ASSET4 sample from 2002 to 2013. The dependent variable for all specifications is Tobin's Q, defined as the ratio of market value of equity to the book value of equity, winsorized at the 5% level. The key explanatory variables are the global E-index, the CSR rating (which is measured by ASSET4's overall CSR score, environmental score, and social score, respectively), and an interaction between the E-index and CSR (Entrenchment Index × CSR). If CSR enhances firm value, it can counterbalance the negative impact of managerial agency problems as proxied by the E-index. Therefore, we expect a negative coefficient of the E-index, a positive coefficient of CSR, and a positive coefficient of their interaction. We use standard financial controls, such as firm size (measured as Log(Assets)), the largest shareholder's cash flow rights and its square, return on equity (ROE), leverage ratio, capital expenditure, dividend per share, as well as year dummies, country dummies, and industry dummies (based on Thomson Reuter's industry classification). Panel A shows the results from the whole ASSET4 sample (worldwide sample). While some may be concerned that the entrenchment index is more relevant for dispersed ownership structure, we also show in Panel B the results from the subsample of companies in the U.S., U.K., and Australia, and in Panel C the results from the subsample of more countries with dispersed ownership as classified by La Porta et al. (1999), which further includes Canada, Ireland, Switzerland, and Japan.

The coefficients on the three measures of our global E-index are mostly negatively associated with Tobin's Q throughout all panels, which is consistent with the results using the original E-

[26] Inevitably, there are missing values for some firms in some years from Datastream, and we either treat these missing values as "missing" (Entrenchment Index 1), or treat these missing values as "zeros" (Entrenchment Index 2). As a further robustness check of our "global E-index", we create Entrenchment Index 3 by replacing "classified board" in Entrenchment Index 2 by "staggered board".

index as in Bebchuk et al. (2009), and confirms that our new index functions similarly with respect to firm value. The main effects of various CSR ratings are mostly positive in Panel A, suggesting that higher CSR rating is associated with higher firm value. The most interesting results are on the interaction term between CSR and the global E-index: for almost all CSR ratings (environmental, social, and overall), the coefficients are positive and statistically significant. This reinforces our earlier findings supporting the value-enhancing view rather than the agency view, and suggests that CSR rather than being an agency problem, can actually attenuate the negative effects of agency problems (managerial entrenchment) on firm value. Similar results are found in Panels B and C when we focus on dispersed ownership countries, which confirm our previous findings based on the world sample. Of course, potential endogeneity issues may still exist, and unfortunately there might be no readily single instrumental variable that capture all aspects of CSR as well as of "entrenchment". Therefore, our interaction results should be interpreted with caution. Nevertheless, corporate charters and bylaws are very stable over time (Bebchuk et al., 2009), which could partly eliminate endogeneity concerns, and the pure correlations between "CSR × Entrenchment" at least offer no ground for justifying the agency view.

[Insert Table 7 about Here]

Conclusion

In most Anglo-American countries, there is consensus that corporate governance is about "how investors get the managers to give them back their money" (Shleifer & Vishny, 1997: 738). Corporate social responsibility, because of its focus on stakeholders in addition to shareholders, is often considered as cash diversion and an agency problem. In contrast to this view, is the value-enhancing CSR view in which CSR activities can be consistent with maximizing firm value. In this debate it is important to note that legal rules and ownership structures are very different outside the Anglo-American world, which significantly influences the executives' incentives, the fiduciary duties of the management and the board of directors, as well as the decision making process. The debate on the role of corporate social responsibility therefore often reflects the varieties of capitalism across countries and the boundaries of the firm.

In this paper, we utilize public and proprietary data on corporate compliance and engagement in stakeholder issues to comprehensively trade off the prominent agency view against the value-enhancing view of CSR. Our empirical set-up is well-grounded in fundamental economic theory: incentives, information asymmetry, and control. We do not find empirical evidence that CSR is associated with ex ante agency concerns, such as abundance of cash and a weak connection

between managerial pay and corporate performance. Rather, higher CSR performance is closely related to tighter cash—usually a proxy for better-disciplined managerial practice in the traditional corporate finance literature (Jensen, 1986)—and higher pay-for-performance sensitivity. In addition, firms in countries with better legal protection on shareholder rights receive higher CSR ratings. Moreover, the relation between CSR and large shareholders' ownership exhibits a non-monotonic relationship. Furthermore, CSR can counterbalance the negative effects of managerial entrenchment, and lead to higher shareholder value as proxied by Tobin's Q. Our empirical results (based on an instrumental variables-estimation) suggest that good governance causes high CSR, and that a firm's CSR practice is consistent with shareholder wealth maximization. Therefore, our findings support the positive stance on CSR, which is also found in Dimson et al. (2013), Deng et al. (2013), and Ioannou & Serafeim (2010, 2012).

While the vast majority of the literature has emphasized the agency costs of managerial entrenchment and large shareholders' control, as well as their economic consequences such as distorting resource allocation and impeding economic growth, our empirical findings show that these costs are at least not made through CSR activities. Rather, as shown in our results based on the self-constructed global entrenchment index, CSR engagement can actually counterbalance the negative impact of entrenchment and agency problems on firm value. In fact, the high correlations of CSR ratings and country-level sustainability ratings (which incorporate economic development and governance) may imply that CSR activities in general are conducive to achieving sustainable development (Moon, 2007). Of course, none of this is to say that more CSR is always better. Undertaking some CSR activities may indeed be driven by managerial utility considerations, such as the satisfaction of some personal or moral imperative of the manager, rather than the enhancement of shareholder wealth (Moser and Martin, 2012). Moreover, shareholders always internalize the costs of CSR expenditures, and as their ownership stakes increase, they reduce spending on CSR. Our main argument is that *in general*, corporate social responsibility need not to be inevitably induced by agency problems, but can actually preserve a core value of capitalism—generating more returns to investors—through enhancing firm value and shareholder wealth.

If we take the evidence in this paper at face value, several policy implications emerge for the improvement of corporate governance, particularly in the area of corporate social responsibility. Undoubtedly, governments have their responsibility of dealing with market failures and externalities, but the government may not always be incentivized and effective in achieving this goal—governments can be corrupt, inefficient, and even predatory to private sectors (Shleifer and Vishny, 1998), in which case they fail to provide public goods. Therefore, corporate social responsibility in private sectors—the private provision of public goods (Kitzmueller and

Shimshack, 2012)—becomes necessary for preserving social welfare. While many researchers believe that such private provision of public goods may be associated with agency problems that divert shareholder wealth and even undermine the foundations of capitalist spirits, we cast doubt on such belief. Corporate governance reforms should take into account of such positive externalities.

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Table 1. Descriptive Statistics

Panel A. MSCI IVA sample and Vigeo ESG sample

Variables	*MSCI IVA sample*						*Vigeo ESG sample*					
	Obs.	Mean	Median	Std. dev.	Min.	Max.	Obs.	Mean	Median	Std. dev.	Min.	Max.
Cash holdings (scaled by assets)	77,061	0.075	0.045	0.086	0	0.994	5,995	0.076	0.051	0.081	0	0.787
Free cash flows (scaled by assets)	65,728	0.059	0.057	0.073	-1.362	1.565	4,804	0.105	0.094	0.068	-0.368	0.611
Capital expenditure (scaled by assets)	67,091	0.052	0.042	0.046	0	1.037	4,984	0.049	0.040	0.043	0	0.498
Dividend payout ratio	55,670	0.816	0.288	13.766	-70.176	598.420	3,744	0.573	4.817	0.364	-82.172	211.000
Leverage ratio (winsorized)	78,004	0.615	0.613	0.208	0.228	0.955	5,877	6.466	0.094	118.485	0	3967.62
ROA (winsorized)	74,993	0.050	0.043	0.044	-0.02	0.149	5,876	0.050	0.040	0.057	-0.414	0.517
Equity market-to-book (winsorized)	76,417	2.820	2.247	1.875	0.790	8.045	6,766	2.571	1.935	1.938	0.620	8.020
Tobin's Q (winsorized)	72,949	0.677	0.445	0.688	0.042	2.702	5,904	0.326	0.322	0.198	0.028	0.712
Financial constraints (winsorized)	62,076	0.264	0.006	0.495	0	1.832	4,738	0.296	0.035	0.500	0	1.784
Interest coverage (winsorized)	73,948	17.093	5.975	29.411	0.414	122.817	5,821	12.891	5.388	19.369	0.471	79.452
Financial slacks (current ratio)	63,342	1.721	1.365	1.572	0.038	184.984	4,852	0.850	0.774	0.472	0	6.527
Direct ownership of large shareholders	54,746	35.572%	23.12%	33.918%	0	100%	6,755	35.314%	23.560%	34.268%	0	100%
Largest shareholder's total ownership	37,005	22.914%	12.46%	23.274%	0	100%	4,282	23.531%	11.615%	24.147%	0	100%
Independent director ratio	31,019	0.719	0.727	0.175	0	1	5,052	0.770	0.800	0.155	0	0.962
Female CEO	74,996	0.014	0	0.119	0	1	5,539	0.017	0	0.128	0	1
CEO's international work	74,998	0.437	0	0.496	0	1	5,540	0.424	0	0.494	0	1
CEO's overseas education	74,986	0.195	0	0.396	0	1	4,874	0.337	0	0.473	0	1
Total compensation (thousand USD)	24,049	859.509	404.750	2559.806	5.417	75001	1,611	1089.324	483.500	1956.063	3	16668
Employees	71,697	41,917	17,245	82,271	0	2,100,000	5,535	58,897	25,898	102,827	0	2,100,000
Analyst coverage	67,289	14.421	13	7.852	1	54	3,764	18.075	17	8.576	1	51
Investment opportunities	67,049	0.093	0.047	0.797	-0.043	170.824	4,983	0.085	0.046	0.141	-0.003	2.669
Blockholders' direct ownership	54,746	0.356	0.231	0.339	0	1	6,755	0.353	0.236	0.343	0	1
Largest shareholder's total ownership	37,005	0.229	0.125	0.233	0	1	4,282	0.235	0.116	0.241	0	1
Adjusted anti-director rights index	89,765	3.371	4	1.184	2	5	7,006	3.757	4	1.098	2	5
Anti-self-dealing index	89,947	0.617	0.650	0.212	0.170	1	7,047	0.546	0.500	0.240	0.2	1
Public enforcement of anti-self-dealing	89,947	0.197	0	0.339	0	1	7,047	0.331	0	0.403	0	1
Private enforcement of securities law	89,799	0.772	0.747	0.217	0.18	1	7,006	0.655	0.705	0.226	0.18	1
Revised one-share one-vote index	89,765	0.135	0	0.342	0	1	7,006	0.102	0	0.302	0	1
Mandatory (waivable) dividend	89,765	0.233	0	2.837	0	50	7,006	0.285	0	3.144	0	35

Table 1 (Cont). Descriptive Statistics

Panel B. ASSET4 Sample

	Obs	Mean	Median	Std. dev.	Min.	Max.
Wedge1 (voting minus cash flow rights)	20,573	1.165%	0	7.245%	-89.84%	99.99%
Wedge2 (voting over cash flow rights)	20,562	4.039	1	170.790	0	10000
Largest Shareholder's Ownership	23,797	22.029%	13.6%	19.578%	0	100%
Largest Shareholder's Voting Rights	20,716	23.590%	14.3%	20.881%	0	100%
Equity Book-to-Market (winsor.)	46,583	2.359	1.800	1.757	0.500	7.280
Firm Size (Total Assets)	31,133	3612965	6123	2.15×10^{8}	0	3.06×10^{10}
Firm Age	23,374	34.740	23	31.655	0	185
Annual Sales Growth Rate (winsor.)	46,799	12.627%	8.16%	21,157%	-19.070%	69.830%
CapEx to Sales Ratio (winsor.)	29,015	0.017	0.001	0.044	2.54×10^{-6}	0.185
Leverage	31,061	21.081%	15.932%	382.758%	-0.034%	67392%
Dividend Per Share (winsor.)	47,541	4.014	0.345	9.940	0	41
ROE	31,082	0.117	0.118	2.331	-212.5	141.742
Entrenchment Index 1	12,132	1.245	1	1.227	0	5
Entrenchment Index 2	53,472	0.690	0	1.037	0	5
Entrenchment Index 3	53,472	0.889	0	1.239	0	5

Table 2. Correlation between Corporate ESG and Country Sustainability

The MSCI IVA Rating, RiskMetrics EcoValue21 Rating, and RiskMetrics Social Rating are firm-level ESG scores provided by MSCI IVA. The Overall Country Score, Country Environmental Responsibility, Country Institutional Responsibility, and Country Social Responsibility and Solidarity are country-level sustainability indices provided by Vigeo. Overall Country Score is the average of the other three responsibility domain scores. *** stands for statistical significance at 1% level.

	Overall country score (with bonus)	*Country environmental responsibility*	*Country institutional responsibility*	*Country social responsibility and solidarity*
MSCI IVA				
MSCI IVA overall rating	0.29***	0.21***	0.28***	0.26***
RiskMetrics EcoValue21 rating	0.31***	0.31***	0.28***	0.25***
RiskMetrics Social rating	0.29***	0.21***	0.28***	0.26***
Vigeo ESG				
Overall Vigeo rating	0.23***	0.10***	0.29***	0.11***
Human resources rating	0.40***	0.004	0.47***	0.35***
Environmental rating	0.31***	0.11***	0.33***	0.25***
Customers & suppliers	0.14***	-0.001	0.18***	0.09***
Corporate governance	0.04***	0.11***	0.14***	-0.20***
Community involvement	0.17***	-0.005	0.23***	0.10***
Human rights	0.19***	0.07***	0.22***	0.14***
ASSET4 ESG				
CSR score	0.13***	0.05***	0.13***	0.15***
Environmental score	0.26***	0.22***	0.25***	0.21***
Social score	0.21***	0.13***	0.21***	0.17***

Table 3. CSR and Agency Concerns: Two Stage Least Square Regressions

2SLS regression results for various ESG ratings. In the 1st stage regression (not reported), the dependent variables are cash holdings, free cash flows, capital expenditure, dividend payout ratio, and leverage, respectively, and the independent variables are the country-level revised anti-director rights index (ADRI) as in Spamann (2009), anti-self-dealing index (ASDI) as in Djankov et al. (2008), the private enforcement of securities law index as in La Porta et al. (2006), the revised one-share one-vote rule (mandatory proportionality of voting and cash flow) index as in Spamann (2010), the revised mandatory waivable dividend index as in Spamann (2010), and the direct ownership of large shareholders who hold more than 5% of the firm's equity. In the second stage, the dependent variables are various ESG ratings, and the independent variables are the "predicted" cash holdings, free cash flows, CapEx, dividend payouts, and leverage, together with other control variables. Standard errors are adjusted for the second stage and clustered at the industry level. *, **, *** stand for significant at the 10% level, 5% level, and 1% level respectively.

Panel A. Dependent variables are ESG ratings (overall ratings and subdimensional ratings) from the MSCI IVA sample

Dependent variable (2nd stage):	*IVA rating*	*EcoValue rating*	*Social rating*	*Labor relations*	*Industry risk*	*Environ. Opportunity*	*Strategic governance*	*Human capital*	*Stakeholder capital*
Cash holding (scaled)	-0.216	-0.287***	-0.061	0.110	-0.358***	-0.056	0.118	0.241**	0.063
	(0.197)	(0.082)	(0.101)	(0.073)	(0.080)	(0.038)	(0.104)	(0.112)	(0.086)
Free cash flow (scaled)	-0.801*	-1.091***	-2.096***	-1.425***	-0.221	-0.629***	-1.050***	-0.512***	-0.344***
	(0.432)	(0.247)	(0.482)	(0.311)	(0.218)	(0.119)	(0.271)	(0.161)	(0.100)
Capital expenditure (scaled)	-2.317*	-2.176***	-1.418**	-0.832*	-0.407*	-0.806***	-0.282	-1.038**	-0.986***
	(1.295)	(0.370)	(0.634)	(0.436)	(0.243)	(0.154)	(0.247)	(0.425)	(0.302)
Dividend payout (winsor.)	-1.914	-0.062	12.700***	6.910**	4.195***	0.169	5.732***	9.343**	5.248**
	(1.594)	(1.344)	(4.490)	(3.047)	(1.344)	(0.628)	(2.009)	(3.703)	(2.433)
Leverage (winsor.)	0.433**	0.144***	0.209**	0.127*	0.029	-0.017	0.016	0.064	0.050*
	(0.219)	(0.062)	(0.098)	(0.067)	(0.031)	(0.628)	(0.032)	(0.050)	(0.030)
ROA	1.007**	1.005***	1.881***	1.284***	0.168	0.548***	0.992***		
	(0.515)	(0.201)	(0.387)	(0.248)	(0.186)	(0.096)	(0.270)		
Market-to-book equity								0.582*	0.433*
								(0.332)	(0.228)
Financial constraints	-0.340	-0.108***	-0.279***	-0.014	-0.095***	-0.032**	-0.077	-0.209*	-0.246***
	(0.235)	(0.031)	(0.083)	(0.031)	(0.025)	(0.015)	(0.056)	(0.108)	(0.077)
Interest coverage	0.070	0.047***	0.017	-0.002	0.034***	-0.001	-0.021***	0.022	0.027***
	(0.048)	(0.015)	(0.023)	(0.016)	(0.008)	(0.006)	(0.007)	(0.014)	(0.009)
Financial slack	1.885	0.592*	1.066***	0.426	1.183***	-0.274*	-0.206	-0.360	-0.198
	(1.320)	(0.338)	(0.388)	(0.272)	(0.232)	(0.153)	(0.161)	(0.332)	(0.221)
CapEx-to-sales ratio	36.451	29.775***	-7.899	-8.537	5.947	5.127	-12.270*	17.227*	17.661**
	(26.793)	(8.485)	(21.128)	(14.477)	(5.453)	(3.866)	(6.614)	(9.931)	(7.025)
Ln(GDP per capita)	-0.505	-1.061***	-0.321	-0.100	0.499***	-0.363**	0.378**	-0.430	-0.678***
	(0.686)	(0.315)	(0.477)	(0.332)	(0.191)	(0.144)	(0.156)	(0.344)	(0.239)
Globalization index	-0.027	0.042***	-0.006	0.006	-0.036***	0.034***	0.017	0.028	0.024
	(0.045)	(0.012)	(0.017)	(0.012)	(0.007)	(0.007)	(0.011)	(0.024)	(0.018)
Constant	-7.990	13.460***	-2.460	0.348	1.489	12.796***	-0.178	4.196	9.571**
	(7.915)	(4.159)	(3.238)	(2.170)	(3.101)	(2.008)	(3.939)	(4.767)	(3.748)
Sargan-Hansen test P-value	0.326	0.423	0.509	0.167	0.434	0.654	0.613	0.959	0.608
No. observations	14981	26697	18878	18912	22812	26090	14765	14709	14705
Wald Chi-squared	36.25	217.16	136.69	146.46	145.19	238.95	412.9	101.53	128.49

Table 3 (Cont). CSR and Agency Concerns: Two Stage Least Square Regressions

2SLS regression results for various ESG ratings. In the 1st stage regression (not reported), the dependent variables are cash holdings, free cash flows, capital expenditure, dividend payout ratio, and leverage, respectively, and the independent variables are the country-level revised anti-director rights index (ADRI) as in Spamann (2009), anti-self-dealing index (ASDI) as in Djankov et al. (2008), the private enforcement of securities law index as in La Porta et al. (2006), the revised one-share one-vote rule (mandatory proportionality of voting and cash flow) index as in Spamann (2010), the revised mandatory waivable dividend index as in Spamann (2010), and the direct ownership of large shareholders who hold more than 5% of the firm's equity. In the second stage, the dependent variables are various ESG ratings, and the independent variables are the "predicted" cash holdings, free cash flows, CapEx, dividend payouts, and leverage, together with other control variables. Standard errors are adjusted for the second stage and clustered at the industry level. *, **, *** stand for significant at the 10% level, 5% level, and 1% level respectively.

Panel B. Dependent variables are ESG ratings (overall and subdimensional ratings) from the Vigeo corporate ESG sample

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Dependent variable (2nd stage):	*Overall ESG*	*Environment*	*Human resources*	*Community involvement*	*Human rights*	*Customer & supplier*	*Corporate governance*
Agency concerns							
Cash holding (scaled)	-0.497	0.804	4.111	-1.817	-0.406	-0.762	-10.474
	(1.671)	(1.988)	(3.811)	(2.541)	(1.985)	(1.454)	(7.556)
Free cash flow (scaled)	-2.723*	-4.341**	-6.092*	0.176	-3.698**	-2.758**	1.552
	(1.430)	(1.701)	(3.261)	(2.175)	(1.699)	(1.224)	(6.360)
CapEx (scaled)	-3.258	-0.327	4.618	-7.001*	0.969	-0.904	-23.217**
	(2.469)	(2.938)	(5.631)	(3.755)	(2.933)	(2.173)	(11.291)
Dividends payout (winsor.)	0.136	0.258	0.323	0.205	0.124	-0.090	0.173
	(0.178)	(0.212)	(0.407)	(0.271)	(0.212)	(0.161)	(0.835)
Leverage	0.785***	0.195	1.421**	0.702*	0.886***	0.372*	0.891
	(0.264)	(0.314)	(0.603)	(0.402)	(0.314)	(0.219)	(1.136)
Control variables							
ROA	2.969***	3.329***	3.848	1.232	3.528***	2.830***	4.207
	(1.041)	(1.238)	(2.373)	(1.583)	(1.236)	(0.947)	(4.918)
Financial constraints	-0.459	0.315	1.208	-0.570	0.558	-0.104	-4.575*
	(0.597)	(0.710)	(1.361)	(0.908)	(0.709)	(0.510)	(2.651)
Financial slack	-14.458	2.372	-1.280	-20.341	-18.142	-8.706	-73.506
	(10.451)	(12.434)	(23.835)	(15.894)	(12.417)	(9.883)	(51.924)
CapEx-to-Sales ratio	0.366	-0.451	-1.273	1.394*	-0.494	-0.145	4.509*
	(0.549)	(0.653)	(1.252)	(0.835)	(0.652)	(0.489)	(2.540)
Ln(GDP per capita)	2.857	-8.402	1.526	2.007	3.914	4.367	11.291
	(5.354)	(6.371)	(12.212)	(8.143)	(6.361)	(4.240)	(22.033)
Globalization index	0.169	0.156	0.599	-0.064	0.123	0.239	-0.918
	(0.371)	(0.441)	(0.845)	(0.563)	(0.440)	(0.347)	(1.801)
Constant	-40.795	86.301	-158.932	-2.717	-58.098	-30.309	124.078
	(92.024)	(109.491)	(209.883)	(139.954)	(109.335)	(80.498)	(418.261)
Sargan-Hansen test P-value	0.996	0.449	0.086	0.850	0.035	0.187	0.263
Time fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. observations	2164	2164	2164	2164	2164	2164	2164
Wald Chi-squared	162.41	157.28	70.04	112.35	102.53	61.83	37.13

Table 4. CSR and Executive Pay-for-Performance

The dependent variable is the average pay for all executives that are recorded in the BoardEx database, scaled by total assets. Robust standard errors are clustered at the firm level. The dependent variable for each specification is the equity-based compensation.

Panel A. The MSCI Intangible Value Assessment sample

Different ESG indices as independent variables:	*IVA rating*	*EcoValue rating*	*Social rating*	*Labor relations*	*Industry carbon risks*	*Environ. Opportunities*	*Strategic governance*	*Human capital*	*Environment (Overall)*	*Stakeholder capital*
Tobin's Q × CSR	0.010	0.170***	-0.039	0.258***	0.302***	0.260***	0.195***	0.207***	0.306***	0.150***
	(0.064)	(0.059)	(0.064)	(0.069)	(0.084)	(0.053)	(0.048)	(0.047)	(0.051)	(0.044)
CSR	-0.153	0.232	-0.563	-0.680**	0.237	-0.196	1.473*	1.014	0.865	-0.027
	(0.521)	(0.446)	(0.400)	(0.329)	(0.384)	(0.353)	(0.883)	(0.808)	(0.736)	(0.541)
Tobin's Q	-0.001	-0.003	-0.002	-0.005**	-0.005***	-0.005**	-0.002	-0.002	-0.003	-0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
ROA	0.990***	1.012***	1.245***	1.013***	0.932****	0.858***	0.795***	0.769***	0.750***	0.868***
	(0.131)	(0.140)	(0.153)	(0.151)	(0.135)	(0.141)	(0.121)	(0.129)	(0.120)	(0.130)
Leverage	-0.137***	-0.108***	-0.101***	-0.133***	-0.105***	-0.131***	-0.158***	-0.176***	-0.175***	-0.164***
	(0.028)	(0.038)	(0.035)	(0.045)	(0.039)	(0.050)	(0.033)	(0.032)	(0.034)	(0.031)
Analyst coverage	-0.075	-0.018	0.046	-0.035	-0.001	-0.018	-0.208***	-0.160**	-0.173**	-0.115
	(0.082)	(0.070)	(0.072)	(0.074)	(0.082)	(0.071)	(0.074)	(0.080)	(0.077)	(0.084)
Ln(Employees)	-6.972***	-8.608***	-8.029***	-8.261***	-7.394***	-8.486***	-7.365***	-7.329***	-7.311***	-7.017***
	(0.795)	(0.725)	(0.714)	(0.672)	(0.739)	(0.672)	(0.868)	(0.862)	(0.816)	(0.809)
Largest shareholder's ownership	0.046	0.096***	0.085***	0.104***	0.068***	0.102***	0.084**	0.064**	0.066**	0.057*
	(0.030)	(0.028)	(0.030)	(0.029)	(0.026)	(0.029)	(0.036)	(0.030)	(0.030)	(0.029)
Independent director ratio	-0.462***	-0.376***	-0.384***	-0.398***	-0.343***	-0.388***	-0.464***	-0.456***	-0.461***	-0.465***
	(0.049)	(0.049)	(0.053)	(0.052)	(0.050)	(0.049)	(0.049)	(0.046)	(0.049)	(0.047)
CEO gender (male)	-9.898***	-0.386	-0.319	-1.563	-9.930***	-1.295	-10.529***	-11.958***	-11.304***	-12.592***
	(2.612)	(4.411)	(4.412)	(4.262)	(2.349)	(4.436)	(3.177)	(2.838)	(2.429)	(2.601)
CEO overseas work	-3.437***	-2.490***	-1.327	-1.236	-1.197	-2.317***	-3.790***	-3.166***	-3.159***	-3.247***
	(0.785)	(0.884)	(0.842)	(0.853)	(0.927)	(0.884)	(0.825)	(0.788)	(0.800)	(0.808)
CEO overseas education	4.353***	2.147**	2.619***	2.639***	1.958*	2.021**	4.489***	4.271***	4.801***	4.282***
	(0.900)	(0.968)	(1.020)	(1.013)	(1.052)	(0.992)	(0.917)	(0.897)	(0.959)	(0.886)
Constant	78.049***	62.863***	61.935***	65.908***	62.324***	65.355***	72.331***	73.417***	74.433***	80.129***
	(4.206)	(5.434)	(5.383)	(4.903)	(4.370)	(5.338)	(5.254)	(5.251)	(0.287)	(4.443)
No. of obs.	4419	5929	5234	5244	5399	5817	4357	4357	4419	4357
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	25.2%	35.4%	33.5%	33.9%	32.1%	35.4%	25.6%	25.5%	25.6%	25.3%

Table 4 (Cont). CSR and Executive Pay-for-Performance

The dependent variable is the average pay for all executives that are recorded in the BoardEx database, scaled by total assets. Robust standard errors are clustered at the firm level. The dependent variable for each specification is the equity-based compensation.

Panel B. The Vigeo Corporate ESG sample

Different ESG indices as independent variables:	*Overall ESG*	*Environment*	*Human resource*	*Human rights*	*Community involvement*	*Customers & suppliers*	*Corporate governance*
Tobin's Q × CSR	0.011**	0.009**	0.008	0.011***	0.011**	0.014***	0.020***
	(0.004)	(0.005)	(0.005)	(0.004)	(0.005)	(0.004)	(0.004)
CSR	-0.001	-0.025	-0.045*	-0.022	-0.012	-0.085***	-0.015
	(0.037)	(0.021)	(0.025)	(0.030)	(0.028)	(0.031)	(0.024)
Tobin's Q	0.033	0.088	0.138	0.023	-0.014	0.019	-0.241
	(0.153)	(0.063)	(0.150)	(0.153)	(0.177)	(0.157)	(0.185)
ROA	0.322***	0.352***	0.369***	0.328***	0.316***	0.342***	0.223***
	(0.093)	(0.094)	(0.095)	(0.089)	(0.084)	(0.093)	(0.082)
Leverage	0.087	0.088	0.089	0.089	0.087	0.096	0.094
	(0.062)	(0.063)	(0.063)	(0.063)	(0.064)	(0.064)	(0.062)
Ln(Employees)	-1.931***	-1.848***	-1.751***	-1.867***	-2.013***	-1.744***	-1.919***
	(0.560)	(0.535)	(0.536)	(0.557)	(0.548)	(0.519)	(0.546)
Analyst coverage	-0.181***	-0.173	-0.175***	-0.180***	-0.171***	-0.159***	-0.173***
	(0.054)	(0.055)	(0.053)	(0.054)	(0.055)	(0.054)	(0.054)
Largest shareholders' ownership	-0.000	0.0004	0.001	0.0005	0.0004	0.003	0.006
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
Independent director ratio	-0.141***	-0.138***	-0.132***	-0.139***	-0.138***	-0.132***	-0.113***
	(0.034)	(0.033)	(0.034)	(0.034)	(0.034)	(0.032)	(0.034)
CEO overseas work	0.426	0.347	0.275	0.381	0.035	0.390	0.741
	(0.571)	(0.571)	(0.577)	(0.572)	(0.571)	(0.573)	(0.571)
CEO overseas education	-1.602**	-1.650***	-1.852***	-1.650***	-1.639***	-1.545**	-1.419**
	(0.626)	(0.626)	(0.613)	(0.631)	(0.630)	(0.618)	(0.627)
Female CEO	2.087	2.220	2.168	2.113	2.534	2.117	0.738
	(6.375)	(6.354)	(6.231)	(6.339)	(6.523)	(6.192)	(6.314)
Constant	27.138***	27.419***	27.474***	27.683***	27.475***	28.478***	24.548***
	(3.766)	(3.834)	(3.771)	(3.767)	(3.778)	(4.051)	(3.776)
No. of obs.	487	487	487	487	487	487	487
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	71.0%	70.9%	70.9%	71.0%	71.2%	71.3%	72.0%

Table 5. Direct Effects of Legal Protection of Shareholder Rights on CSR

The dependent variables are various ESG indices, and the key explanatory variables are the adjusted anti-director rights index (ADRI), anti-self-dealing index (ASDI), and the public enforcement of the anti-self-dealing regulation. Control variables include legal origins (French, German, and Scandinavian; the English origin is taken as benchmark and omitted from regressions), logarithm of GDP per capita, return on assets (ROA), Tobin's Q, financial constraints, interest coverage, current ratio, the ownership dispersion indicator, investment opportunities, and year and industry dummies. Standard errors are clustered at the country level and reported in the parentheses. *, **, *** stand for significant at the 10% level, 5% level, and 1% level respectively.

Panel A. Dependent variables are ESG ratings (overall ratings and subdimensional ratings) from the MSCI IVA sample

	IVA rating			*EcoValue rating*			*Social rating*			*Labor relations*			*Industry-specific carbon risks*			*Environmental opportunities*		
Adjusted ADRI	0.297***			0.333***			0.269***			0.243***			0.221***			0.151***		
	(0.110)			(0.060)			(0.055)			(0.070)			(0.053)			(0.046)		
ASDI		1.329			1.966***			1.184			1.003			1.302**			0.967***	
		(1.325)			(0.676)			(1.174)			(0.940)			(0.489)			(0.307)	
Public enforce.			0.753***			0.158			0.725***			0.523***			0.004			-0.018
			(0.229)			(0.211)			(0.208)			(0.169)			(0.202)			(0.128)
No. of obs.	25449	25549	25549	48858	48958	48958	32495	32483	32483	32504	32604	32604	40508	40606	40606	47976	48075	48075
Controls		Yes			Yes			Yes			Yes			Yes			Yes	
Year FE		Yes			Yes			Yes			Yes			Yes			Yes	
Industry FE		Yes			Yes			Yes			Yes			Yes			Yes	
R-squared	13.5%	12.2%	12.9%	18.3%	17.5%	16.3%	10.7%	9.5%	10.4%	14.0%	13.2%	13.5%	41.3%	41.6%	41.2%	27.3%	27.2%	27.0%

Panel B. Dependent variables are ESG ratings (overall and subdimensional ratings) from the Vigeo corporate ESG sample

	Overall ESG			*Environment*			*Human resources*			*Customers & suppliers*			*Human rights*			*Community involvement*		
Adjusted ADRI	1.969***			2.789***			3.363***			0.980			2.558***			2.622***		
	(0.585)			(0.520)			(1.123)			(0.674)			(0.811)			(0.762)		
ASDI		-5.395			7.104			0.665			-3.116			-4.828			-7.227	
		(9.169)			(10.904)			(11.472)			(9.148)			(9.046)			(10.608)	
Public enforce.			-0.323			-2.337			0.698			-1.623			0.908			1.325
			(1.516)			(1.711)			(2.255)			(1.376)			(1.688)			(1.384)
No. of obs.	3586	3610	3610	3586	3610	3610	3586	3610	3610	3586	3610	3610	3586	3610	3610	3586	3610	3610
Controls		Yes			Yes			Yes			Yes			Yes			Yes	
Year FE		Yes			Yes			Yes			Yes			Yes			Yes	
Industry FE		Yes			Yes			Yes			Yes			Yes			Yes	
R-squared	33.8%	32.2%	32.2%	28.5%	27.3%	27.4%	41.7%	39.7%	39.8%	18.7%	18.2%	18.3%	24.5%	23.0%	23.0%	27.7%	26.7%	26.7%

Table 6. Direct Effects of Large Shareholders' Ownership and Control on CSR

The dependent variables are various ESG indices from the ASSET4 sample, and the key explanatory variables are the largest shareholder's cash flow rights (ownership) and its square, and the wedge between the largest shareholder's voting rights and cash flow rights. Wedge1 stands for voting rights minus cash flow rights, wedge2 stands for the ratio of voting rights to cash flow rights. Control variables include market-to-book ratio of equity (winsorized at 5%), the logarithm of total assets (size), the logarithm of firm age, annual sales growth rate (winsorized at 1%), and CapEx to sales ratio (winsorized at 1%). All regressions control for country, industry, and time fixed effects. Robust standard errors are clustered at the firm level and reported in parenthesis. *, **, *** stand for significant at the 10% level, 5% level, and 1% level respectively.

Dependent variables are ESG ratings (overall ratings, environmental ratings, and social ratings) from the ASSET4 sample												
	Overall CSR Rating				*Environmental Rating*				*Social Rating*			
Ownership and Control												
Wedge1 (Voting Rights - Ownership)	-0.118***		-0.089**		-0.072**		-0.066*		-0.088***		-0.079**	
	(0.032)		(0.036)		(0.031)		(0.036)		(0.031)		(0.035)	
Wedge2 (Voting Rights/ Ownership)		-0.002***		-0.001***		-0.002***		-0.002***		-0.001***		-0.001**
		(0.0002)		(0.0004)		(0.0002)		(0.0003)		(0.0002)		(0.0004)
Largest Shareholder Ownership	-0.274***	-0.278***	-0.310***	-0.315***	-0.223***	-0.215***	-0.234***	-0.232***	-0.175***	-0.181***	-0.223***	-0.226***
	(0.054)	(0.054)	(0.073)	(0.073)	(0.053)	(0.054)	(0.079)	(0.078)	(0.054)	(0.054)	(0.076)	(0.076)
Largest Shareholder Ownership Square	0.002***	0.002***	0.002***	0.003***	0.002***	0.002***	0.002**	0.002***	0.001**	0.001**	0.002**	0.002**
	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.0006)	(0.0006)	(0.001)	()0.001
Control Variables												
Equity Market-to-Book	0.129	0.121	0.375**	0.376**	-0.046	-0.052	0.352*	0.350*	0.168	0.162	0.470**	0.472**
	(0.134)	(0.135)	(0.189)	(0.189)	(0.132)	(0.132)	(0.181)	(0.182)	(0.135)	(0.136)	(0.197)	(0.198)
Log(Size)			7.261***	7.265***			7.689***	7.691***			7.195***	7.199***
			(0.486)	(0.486)			(0.462)	(0.461)			(0.474)	(0.473)
Log(Age)			3.940***	3.962***			2.647***	2.657***			2.919***	2.945***
			(0.614)	(0.615)			(0.607)	(0.607)			(0.617)	(0.617)
Annual Sales Growth Rate			0.002	0.002			-0.015***	-0.015***			-0.013**	-0.013**
			(0.005)	(0.005)			(0.005)	(0.005)			(0.006)	(0.006)
CapEx to Sales Ratio			-0.077**	-0.077**			0.012	0.012			-0.048	-0.048
			(0.034)	(0.033)			(0.040)	(0.040)			(0.038)	(0.037)
Constant			-64.214***	-64.822***			-44.976***	-45.233***			-39.148***	-39.790***
			(7.664)	(7.665)			(8.071)	(8.046)			(7.384)	(7.372)
No. of Observations	18905	18894	9064	9060	19467	19456	9193	9189	19467	19456	9193	9189
Country, Industry, Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
R-squared	20.5%	20.4%	42.0%	41.8%	28.3%	28.3%	45.1%	45.0%	24.2%	24.2%	41.9%	41.8%

Table 7. CSR, Entrenchment, and Firm Value: ASSET4 Sample

The dependent variable is Tobin's Q (the ratio of equity market capitalization to equity book value) winsorized at 5% level for all regressions. Entrenchment Index 1 is the sum of the following dummy variables from Datastream: the presence of (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions, treating non-available values as missing. Entrenchment Index 2 has the same composition as Entrenchment Index 1, but treating non-available values as zeros. Entrenchment Index 3 has the same composition as Entrenchment Index 2 (also treating non-available values as zeros), except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). CSR is measured by ASSET4's overall CSR rating for columns (1)—(3), ASSET4's aggregate environmental rating for columns (4)—(6), and ASSET4's aggregate social rating for columns (7)—(9). All specifications include country fixed effects, industry fixed effects, and year fixed effects. Standard errors are clustered at the firm level and reported in parentheses.

Panel A. The World Sample

Dep. var. = Tobin's Q winsorized 5%	*Overall CSR rating*			*Environmental rating*			*Social rating*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entrenchment Index 1	-0.0724			-0.0761**			-0.0864**		
	(0.0474)			(0.0384)			(0.0429)		
Entrenchment Index 2		-0.0767**			-0.0707***			-0.0780***	
		(0.0318)			(0.0274)			(0.0299)	
Entrenchment Index 3			-0.0689**			-0.0618**			-0.0805***
			(0.0296)			(0.0254)			(0.0275)
CSR	0.0023	0.0021**	0.0022**	0.0007	0.0005	0.0007	0.0013	0.0016*	0.0014
	(0.0015)	(0.0010)	(0.0011)	(0.0015)	(0.0010)	(0.001)	(0.0015)	(0.0010)	(0.0010)
CSR × Entrenchment Index	0.0009	0.0011**	0.0008*	0.0014**	0.0012***	0.0009**	0.0014**	0.0013***	0.0011***
	(0.0007)	(0.0005)	(0.0004)	(0.0006)	(0.0004)	(0.0004)	(0.0006)	(0.0004)	(0.0004)
Log(Assets)	-0.2287***	-0.2775***	-0.2772***	-0.3385***	-0.2694***	-0.2692***	-0.3437***	-0.2784***	-0.2784***
	(0.0379)	(0.0284)	(0.0283)	(0.0372)	(0.0275)	(0.0275)	(0.0376)	(0.0280)	(0.0280)
Largest Shareholder Ownership	-0.0004	0.0017	0.0015	-0.0014	0.0007	0.0005	-0.0012	0.0009	0.0008
	(0.0058)	(0.0042)	(0.0042)	(0.0058)	(0.0042)	(0.0042)	(0.0058)	(0.0042)	(0.0042)
Largest Shareholder Ownership Square	0.0001	-0.0000	-0.0000	0.0001	0.0000	0.0000	0.0001	0.0000	0.0000
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
Leverage	-0.0044	0.0008	0.0008	-0.0046	0.0005	0.0005	-0.0045	0.0005	0.0005
	(0.0040)	(0.0029)	(0.0029)	(0.0040)	(0.0029)	(0.0029)	(0.004)	(0.0029)	(0.0029)
Dividend Per Share	0.0001	-0.0000	-0.0000	0.0002	0.0000	0.0000	0.0001	-0.0000	-0.0000
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
ROE	0.0161	0.0227	0.0226	0.0164	0.0230	0.0229	0.0162	0.0229	0.0229
	(0.0146)	(0.0150)	(0.0150)	(0.0147)	(0.0150)	(0.0150)	(0.0147)	(0.0151)	(0.0151)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. observations	6527	16077	16077	6566	16278	16278	6566	16278	16278
R-squared	25.3%	25.4%	25.4%	25.1%	25.0%	25.0%	25.4%	25.3%	25.3%

Table 7 (Cont). CSR, Entrenchment, and Firm Value: ASSET4 Sample

The dependent variable is Tobin's Q (the ratio of equity market capitalization to equity book value) winsorized at 5% level for all regressions. Entrenchment Index 1 is the sum of the following dummy variables from Datastream: the presence of (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions, treating non-available values as missing. Entrenchment Index 2 has the same composition as Entrenchment Index 1, but treating non-available values as zeros. Entrenchment Index 3 has the same composition as Entrenchment Index 2 (also treating non-available values as zeros), except that "classified board" (directors' terms can be different) is replaced by "staggered board" (directors' terms are uniform). CSR is measured by ASSET4's overall CSR rating for columns (1)—(3), ASSET4's aggregate environmental rating for columns (4)—(6), and ASSET4's aggregate social rating for columns (7)—(9). All specifications include country fixed effects, industry fixed effects, and year fixed effects. Standard errors are clustered at the firm level and reported in parentheses.

Panel B. The Subsample of Dispersed Ownership Countries: U.S., U.K., and Australia

Dep. var. = Tobin's Q winsorized 5%	*Overall CSR rating*			*Environmental rating*			*Social rating*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entrenchment Index 1	-0.0516			-0.0418			-0.0629		
	(0.0528)			(0.0422)			(0.0479)		
Entrenchment Index 2		-0.0847**			-0.0600*			-0.0810**	
		(0.0419)			(0.0341)			(0.0387)	
Entrenchment Index 3			-0.0822**			-0.0540*			-0.0900**
			(0.0390)			(0.0317)			(0.0353)
CSR	0.0022	0.0022	0.0020	0.0021	0.0011	0.0014	0.0015	0.0014	0.0006
	(0.0020)	(0.0017)	(0.0019)	(0.0020)	(0.0016)	(0.0018)	(0.0021)	(0.0017)	(0.0019)
CSR × Entrenchment Index	0.0006	0.0012*	0.0011*	0.0008	0.0012**	0.0009	0.0011	0.0014**	0.0015**
	(0.0008)	(0.0006)	(0.0006)	(0.0007)	(0.0006)	(0.0006)	(0.0008)	(0.0006)	(0.0006)
Control Variables and Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. observations	4649	8782	8782	4676	8872	8872	4676	8872	8872
R-squared	25.1%	23.2%	23.2%	25.1%	22.9%	22.9%	25.3%	23.1%	23.1%

Panel C. The Subsample of Dispersed Ownership Countries: U.S., U.K., Australia, Canada, Ireland, Switzerland, and Japan

Dep. var. = Tobin's Q winsorized 5%	*Overall CSR rating*			*Environmental rating*			*Social rating*		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Entrenchment Index 1	-0.0731			-0.0599			-0.0827*		
	(0.0497)			(0.0402)			(0.0449)		
Entrenchment Index 2		-0.0967***			-0.0691**			-0.0936***	
		(0.0357)			(0.0298)			(0.0327)	
Entrenchment Index 3			-0.0886***			-0.0587**			-0.0962***
			(0.0327)			(0.0274)			(0.0296)
CSR	0.0018	0.0017	0.0015	0.0016	0.0011	0.0013	0.0008	0.0011	0.0005
	(0.0018)	(0.0013)	(0.0014)	(0.0017)	(0.0013)	(0.0014)	(0.0017)	(0.0013)	(0.0014)
CSR × Entrenchment Index	0.0010	0.0014***	0.0012**	0.0011*	0.0012**	0.0009**	0.0015**	0.0016***	0.0016***
	(0.0008)	(0.0006)	(0.0005)	(0.0007)	(0.0005)	(0.0004)	(0.0007)	(0.0005)	(0.0005)
Control Variables and Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
No. observations	5373	11426	11426	5412	11572	11572	5412	11572	11572
R-squared	25.4%	25.2%	25.2%	25.4%	24.6%	24.7%	25.5%	24.9%	24.9%

Appendix 1a. MSCI Intangible Value Assessment Data Description

IVA Factor	*IVA Subscore*	*weight*	*Key Metrics*
Strategic governance	SG1) Strategy	<2%	Overall governance; rating composed of total scores of non-Key Issues
	SG2) Strategic Capability	<2%	Management of CSR issues, partnership in multi-stakeholder initiatives
	SG3) Traditional Governance Concerns	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
Human capital	HC1) Workplace Practices	<2%	Workforce diversity, policies and programs to promote diversity, work/life benefits, discrimination-related controversies
	HC2) Labor Relations	20%	*KEY ISSUE: Labor Relations* Benefits, strikes, union relations, controversies, risk of work stoppages, etc.
	HC3) Health & Safety	<2%	H&S policies and systems, implementation and monitoring of those systems, performance (injury rate, etc.), safety-related incidents and controversies
Stakeholder capital	SC1) Stakeholder Partnerships	<2%	Customer initiatives, customer-related controversies, firm's support for public policies with noteworthy benefits for stakeholders
	SC2) Local Communities	<2%	Policies, systems and initiatives involving local communities (esp. indigenous peoples), controversies related to firm's interactions with communities
	SC3) Supply Chain	<2%	Policies and systems to protect supply-chain workers' and contractors' rights, initiatives toward improving labor conditions, supply-chain-related controversies
Products and services	PS1) Intellectual Capital/ Product Development	<2%	Beneficial products and services, including efforts that benefit the disadvantaged, reduce consumption of energy and resources, and production of hazardous chemicals; average of two scores
	PS2) Product Safety	<2%	Product quality, health and safety initiatives, controversies related to the quality or safety of a firm's products, including legal cases, recalls, criticism
Emerging markets	EM1) EM Strategy	<2%	Default = 5, unless there is company specific exposure that is highly significant
	EM2) Human Rights/ Child and Forced Labor	<2%	Policies, support for values in Universal Declaration of Human Rights, initiatives to promote human rights, human rights controversies
	EM3) Oppressive regimes	<2%	Controversies, substantive involvement in countries with poor HR records
Environmental risk factors	ER1) Historic Liabilities	<2%	Controversies including natural resource-related cases, widespread or egregious environmental impacts
	ER2) Operating Risk	<2%	Emissions to air, discharges to water, emission of toxic chemicals, nuclear energy, controversies involving non-GHG emissions
	ER3) Leading/ Sustainability Risk Indicators	<2%	Water management and use, use of recycled materials, sourcing, sustainable resource management, climate change policy and transparency, climate change initiatives, absolute and normalized emissions output, controversies
	ER4) Industry Carbon Specific Risk	25%	*KEY ISSUE: Carbon* Targets, emissions intensity relative to peers, estimated cost of compliance
Environmental management capacity	EMC1) Environmental Strategy	<2%	Policies to integrate environmental considerations into all operations, environmental management systems, regulatory compliance, controversies
	EMC2) Corporate Governance	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.

	EMC3) Environmental Management Systems	<2%	Establishment and monitoring of environmental performance targets, presence of environmental training, stakeholder engagement
	EMC4) Audit	<2%	External independent audits of environmental performance
	EMC5) Environmental Accounting/Reporting	<2%	Reporting frequency, reporting quality
	EMC6) Environmental Training & Development	<2%	Presence of environmental training and communications programs for employees
	EMC7) Certification	<2%	Certifications by ISO or other industry- and country-specific third party auditors
	EMC8) Products/ Materials	<2%	Positive and negative impact of products & services, end-of-life product management, controversies related to environmental impact of P&S.
Environmental opportunity factors	EO1) Strategic Competence	<2%	Policies to integrate environmental considerations into all operations and reduce environmental impact of operations, products & services, environmental management systems, regulatory compliance
	EO2) Environmental Opportunity	35%	*KEY ISSUE: Opportunities in clean technology* Product development in clean technology, R&D relative to sales and trend, innovation capacity
	EO3) Performance	<2%	Percent of revenue represented by identified beneficial products & services

Appendix 1b. Vigeo Corporate ESG Data Description

Key domain	*Subdimension*	*Description*
Environment	ENV1.1	Environmental strategy and eco-design
	ENV1.2	Pollution prevention and control
	ENV1.3	Development of Green products and services
	ENV1.4	Protection of biodiversity
	ENV2.1	Protection of water resources
	ENV2.2	Minimizing environmental impacts from energy use
	ENV2.3	Environmental supply chain management
	ENV2.4	Management of atmospheric emissions
	ENV2.5	Waste management
	ENV2.6	Management of environmental nuisances: dust, odor, noise
	ENV2.7	Management of environmental impacts from transportation
	ENV3.1	Management of environmental impacts from the use and disposal of products/services
Human resources	HRS1.1	Promotion of labor relations
	HRS1.2	Encouraging employee participation
	HRS2.1	Career Development
	HRS2.2	Training and Development
	HRS2.3	Responsible management of restructurings
	HRS2.4	Carrer management and promotion of employability
	HRS3.1	Quality of remuneration systems
	HRS3.2	Improvement of health and safety conditions
	HRS3.3	Respect and management of working hours
Business behavior *(Customer & supplier)*	C&S1.1	Product safety
	C&S1.2	Information to customers
	C&S1.3	Responsible Contractual Agreement
	C&S2.1	Integration of CSR in purchasing processes
	C&S2.2	Sustainable Relationship with suppliers
	C&S2.3	Integration of environmental factors in the supply chain
	C&S2.4	Integration of social factors in the supply chain
	C&S3.1	Prevention of corruption
	C&S3.2	Prevention of anti-competitive practices
	C&S3.3	Transparency and integrity of influence strategies and practices
Human rights	HR1.1	Respect for human rights standards and prevention of violations
	HR2.1	Respect for freedom of association and the right to collective bargaining
	HR2.2	Elimination of child labour
	HR2.3	Abolition of forced labour
	HR2.4	Non-discrimination
Community involvement	CIN1.1	Promotion of social and economic development
	CIN2.1	Social impacts of company's products and services
	CIN2.2	Contribution to general interest causes
Corporate governance	CGV1.1	Board of directors
	CGV2.1	Audit and Internal Controls
	CGV3.1	Shareholders' Rights
	CGV4.4	Executive Remuneration

Appendix 2a. MSCI Intangible Value Assessment Country (Region) Coverage

Country	IVA Rating	EcoValue 21 Rating	Social Rating	Firm-year obs.	Firm obs.
Australia	2.95	2.75	2.97	2,877	240
Austria	3.44	3.13	3.23	370	14
Belgium	2.98	2.97	3.00	680	19
Bermuda Islands	2.02	1.35	2.06	283	16
Brazil	2.68	3.28	2.68	426	33
Canada	3.24	2.87	3.26	3,347	129
Cayman Islands	2.60	1.94	2.95	101	3
Chile	1.59	1.50	1.72	46	9
China	0.54	0.46	0.63	181	35
Colombia	2.00	2.67	2.33	3	2
Cyprus	4.00	3.00	4.00	5	1
Czech Republic	2.43	2.38	2.73	124	22
Denmark	3.43	3.31	3.33	843	22
Egypt	1.71	0.76	1.65	17	3
Finland	3.85	3.78	3.84	927	27
France	3.95	3.39	3.62	3,660	89
Germany	3.83	4.06	3.74	2,779	66
Greece	2.23	2.05	2.14	554	16
Hong Kong	1.79	1.96	1.92	1,447	62
Hungary	1.74	1.83	1.63	95	4
India	2.03	1.66	2.09	150	26
Indonesia	1.47	0.53	1.59	34	4
Ireland	1.89	2.09	1.88	892	24
Israel	1.09	1.64	1.09	78	11
Italy	2.31	1.99	2.33	2149	54
Japan	2.57	3.67	2.59	11,270	384
Korea, South	2.59	2.96	2.61	466	28
Luxembourg	1.96	2.65	1.99	145	9
Macao, China	2.00	4.00	1.50	2	2
Malaysia	1.47	1.18	1.90	154	14
Mexico	2.05	2.69	2.18	239	17
Morocco	1.00	0.67	1.33	3	1
Netherlands	3.35	3.62	3.29	1,496	34
New Zealand	2.70	2.95	2.97	256	13
Norway	4.06	4.35	3.94	485	16
Pakistan	1.50	1.25	1.75	4	2
Papua New Guinea	2.62	2.00	3.05	21	2
Peru	1.00	1.00	1.00	1	1
Philippines	0.04	0.89	0.04	28	1
Poland	2.03	1.55	1.76	194	7
Portugal	2.67	2.60	2.12	451	11
Puerto Rico	1.06	1.53	1.06	32	1
Romania	1.00	0.78	1.00	23	1
Russia	0.79	0.64	1.07	227	19
Singapore	2.03	2.08	2.08	740	40
South Africa	4.26	3.50	4.33	167	17
Spain	3.48	3.08	3.45	1,610	45
Sweden	4.19	4.09	4.11	1,600	42
Switzerland	3.18	3.10	3.11	3,184	60
Taiwan	2.15	2.04	2.19	156	17
Thailand	2.53	1.04	2.58	82	6
Turkey	2.20	1.13	2.04	109	7
United Arab Emirates	1.00	3.00	1.00	1	1
United Kingdom	3.62	3.24	3.52	14,203	315
United States	2.38	2.44	2.45	31,819	778
			(Not included in the World Bank data)		
British Virgin Islands	1.00	2.00	0.00	1	1
Guernsey	2.03	1.28	1.80	87	2
Gibraltar	3.00	2.48	3.09	23	2
Jersey	1.27	1.08	1.31	26	3
(Total: 59 countries)				91,373	

Appendix 2b.Vigeo ESG Country (Region) Coverage

Country	Overall ESG score	Environment score	Human resource score	Human rights score	Community involvement score	Customers & suppliers score	Corporate governance score	Firm-year obs.	Firm obs.
Australia	34.91	25.12	22.08	34.71	32.86	37.69	56.72	154	72
Austria	28.72	23.95	29.32	35.22	29.40	32.02	40.28	57	16
Belgium	35.45	36.78	38.65	38.49	39.10	41.28	41.25	120	22
Bermuda	30.00	21.00	33.00	38.00	55.00	19.00	39.00	1	1
China	14.80	4.80	6.20	20.60	25.60	23.60	22.00	5	3
Canada	35.20	26.29	24.70	37.53	38.07	41.45	51.54	133	52
Denmark	29.60	27.62	29.59	36.18	30.75	35.76	34.30	97	27
Finland	40.15	40.49	41.72	42.55	33.24	42.37	50.89	123	24
France	42.40	41.22	47.18	48.15	47.53	45.91	43.66	1038	121
Germany	40.55	43.29	43.91	46.25	42.25	44.37	45.11	508	75
Greece	27.61	26.54	27.81	30.10	33.32	34.37	29.67	57	12
Hong Kong, China	23.36	15.22	15.31	25.05	22.50	27.06	35.53	96	43
Iceland	21.50	5.75	8.00	22.25	9.75	33.75	39.00	4	4
Ireland	27.08	22.85	25.59	30.04	31.95	35.07	51.56	97	18
Italy	36.75	34.28	40.97	41.62	39.85	42.94	12.09	291	52
Japan	25.19	27.47	19.39	31.87	26.25	33.46	16.37	655	290
Luxembourg	33.31	29.03	35.90	40.00	43.30	40.57	44.60	30	5
Netherlands	42.65	43.19	42.35	45.35	47.67	48.55	53.85	288	47
New Zealand	29.43	28.86	17.43	27.14	19.86	29.14	48.86	7	3
Norway	40.94	34.00	39.90	48.14	38.96	41.10	51.60	67	19
Portugal	35.86	35.15	37.90	37.60	42.97	43.08	36.00	61	10
Russia	32.00	31.00	20.00	18.00	16.00	43.00	56.00	2	1
Singapore	25.62	16.16	14.35	23.84	23.84	27.89	44.19	37	17
Spain	36.52	36.40	38.60	40.91	40.85	41.97	41.87	259	51
Sweden	37.10	35.76	32.99	45.71	32.41	42.29	42.08	194	43
Switzerland	37.02	35.79	32.45	40.49	36.04	40.72	44.44	301	54
United Kingdom	42.24	39.47	33.14	42.04	45.85	42.65	64.77	1,157	255
United States	32.69	23.57	18.37	37.28	33.59	38.58	49.86	1,209	449

Appendix 2c. ASSET4 ESG Country (Region) Coverage

Country	Overall CSR rating	Environmental rating	Social rating	Firm-year obs.	Firm obs.	Country	Overall CSR rating	Environmental rating	Social rating	Firm-year obs.	Firm obs.
Abu Dhabi (UAE)	19.65	38.32	25.68	12	1	Kuwait	18.92	24.30	36.60	48	4
Austria	43.29	38.13	38.77	4,020	335	Luxembourg	55.00	58.48	52.83	60	5
Australia	44.46	51.84	50.40	252	21	Malaysia	42.32	41.12	50.21	540	45
Belgium	53.16	54.88	49.63	336	28	Mexico	38.96	46.03	49.47	324	27
Brazil	55.02	55.19	67.72	1,008	84	Morocco	21.57	20.13	53.42	36	3
Canada	47.59	37.64	38.65	3,864	322	Netherlands	75.30	68.86	75.36	540	45
Channel Islands	52.05	49,82	53.02	24	2	New Zealand	49.47	45.42	42.40	144	12
Chile	33.41	43.66	45.61	252	21	Nigeria	7.18	10.89	19.71	12	1
China	25.59	33.38	32.78	984	82	Norway	56.90	55.26	58.87	300	25
Colombia	34.40	34.52	40.94	108	9	Oman	27.00	27.42	33.00	12	1
Cyprus	39.18	30.20	36.71	12	1	Peru	41.33	31.05	34.41	12	1
Czech Republic	48.56	48.72	60.01	48	4	Philippines	39.59	36.07	40.79	252	21
Denmark	48.45	56.43	52.69	324	27	Poland	33.22	33.62	42.06	312	26
Dubai	37.39	44.24	33.76	12	1	Portgual	67.52	66.20	73.95	144	12
Egypt	14.55	19.29	27.22	132	11	Quatar	10.77	12.87	24.64	24	2
Finland	72.26	73.25	66.86	324	27	Russian Federation	37.52	39.92	50.64	408	34
France	71.45	75.70	76.36	1,212	101	Saudi Arabia	19.22	32.12	25.65	72	6
Germany	58.25	67.07	67.16	1,068	89	Singapore	34.66	33.58	35.60	648	54
Greece	35.42	47.10	49.62	300	25	South Africa	66.17	56.74	73.06	1,092	91
Hong Kong	30.27	33.72	35.51	1,800	150	South Korea	47.12	62.00	56.77	1,212	101
Hungary	73.29	76.18	80.80	48	4	Spain	66.26	68.54	73.82	696	58
Iceland	29.02	20.45	36.06	36	3	Sri Lanka	51.25	51.09	66.59	12	1
India	47.16	51.60	57.93	960	80	Sweden	62.79	66.58	63.91	660	55
Indonesia	45.46	41.95	60.83	300	25	Switzerland	57.88	58.71	56.98	852	71
Ireland	43.04	42.65	39.33	216	18	Taiwan	29.02	44.74	36.30	1,536	128
Israel	38.44	42.65	39.33	168	14	Thailand	55.76	47.93	56.73	264	22
Italy	52.92	53.05	62.93	708	59	Turkey	44.33	48.36	52.90	288	24
Japan	38.18	61.62	45.47	5,196	433	United Kingdom	64.32	59.63	63.16	4,776	398
Jordan	52.16	60.71	62.99	12	1	United States	51.91	40.22	44.17	14,436	1203
Kazakhstan	34.92	15.74	27.17	12	1	Zimbabwe	11.75	38.42	35.57	12	1

Appendix 3. Variable Definitions

Variables	*Description*
Anti-director rights index (ADRI)	The anti-director rights index (ADRI) was first developed in La Porta *et al.* (1998) as a measure of investor protection against corporate management, and later on revised in Djankov *et al.* (2008) and Spamann (2010). All the three ADRIs consist of the same six key components: (1) proxy by mail allowed; (2) shares not blocked before shareholder meeting; (3) cumulative voting/ proportional representation; (4) oppressed minority protection; (5) preemptive rights to new share issues; (6) percentage of share capital to call an extraordinary shareholder meeting. Each component is a dummy variable and the ADRI is formed by aggregating the value of all six components. The index ranges from 0 to 6, whereby a higher value of the index indicates stronger shareholder protection. Source: LLSV (1998); La Porta *et al.* (2008); Spamann (2010).
Anti-self-dealing index (ASDI)	The anti-self-dealing index (ASDI) was developed by Djankov *et al.* (2008) and is an average of ex ante and ex post private control of self-dealing. The ex ante private control of self-dealing transactions includes approval by disinterested shareholders and ex ante disclosure by the buyer, the insider, and independent review. The ex post private control of self-dealing transactions include the disclosure in periodic filings and the ease of proving wrong doing (holding the insider and the approving body civilly liable, as well as access to evidence). Source: Djankov *et al.* (2008)
One-share one-voting index (mandatory proportionality of voting and cash flow)	Equals one if the company law or commercial code of the country requires that ordinary shares carry one vote per share, and zero otherwise. Equivalently, this variable equals one when the law prohibits the existence of both multiple-voting and nonvoting ordinary shares and does not allow firms to set a maximum number of votes per shareholder irrespective of the number of shares owned, and zero otherwise. "Ordinary shares" means all shares that do not carry a preference of any kind, neither for dividends nor for liquidation. For voting rights, a literal interpretation is adopted, under which the equal number of votes, not the proportionality of votes and cash-flow rights is decisive. In addition, strict proportionality between voting and cash-flow rights is required. Source: LLSV (1998), Spamann (2010).
Mandatory (waivable) dividend index	Equals the percentage of net income that the company law or commercial code requires firms to distribute as dividends among ordinary stockholders. It takes a value of zero for countries without such a restriction. The shareholder assembly can waive the right to the dividend. Source: LLSV (1998); Spamann (2010).
Public enforcement of anti-self-dealing	Index of public enforcement if all disclosure and approval requirements have been met. Ranges from 0 to 1. One-quarter point when each of the following sanction is available: (1) fines for the approving body, (2) jail sentences for approving body, (3) fines for the insider, (4) jail sentences for the insider. Source: Djankov *et al.* (2008).
Private enforcement of securities law	The combination of the disclosure requirements index and the liability standard index. The disclosure requirements index includes six sub-dimensions: (1) prospectus; (2) compensations of directors and key officers; (3) shareholders ownership structure; (4) insider ownership; (5) irregular contracts; and (6) transactions between the securities issuer and its directors, officers, and/or large shareholders (i.e., "related parties"). Source: La Porta, Lopez-de-Silanes, and Shleifer (2006).
Public enforcement of securities law	The index of public enforcement is the average of five subindices related to the "Supervisor" of securities regulation: (1) supervisor characteristics index, including appointment, tenure, and focus; (2) rule-making power index, including the power of the supervisor to issue regulations regarding primary offerings and listing rules on stock exchanges; (3) investigative powers index, including document and witness; (4) orders index, including orders issuer, orders distributor, and orders accountant; (5) criminal index, including criminal director, criminal distributor, and criminal accountant. Source: La Porta, Lopez-de-Silanes, and Shleifer (2006).
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Source: World Bank.
Cash holding	The amount of cash and cash equivalent on the balance sheet, scaled by total assets. Source: Compustat.

Free cash flows	Computed as EBIT multiplied by (1 – tax rate), and plus the Depreciation & Amortization, and then minus Change in Working Capital, and then minus Capital Expenditure, finally scaled by total assets. Source: Compustat.
Capital expenditure	The capital expenditure recorded on the balance sheet, scaled by total assets. Source: Compustat.
Dividend payout ratio	Calculated as the common dividends divided by net income, as recorded on the company's financial statement. Source: Datastream.
Leverage	Calculated as the book value of total liabilities divided by book value of total equity of the company (MSCI and Vigeo samples), or the book value of total liabilities divided by the book value of total assets of the company (ASSET4 sample). Source: Compustat.
Total compensation	Executives' compensation including salaries and cash bonuses, stock options, equity-linked LTIP cash plan, equity-linked LTIP option plan, equity-linked LTIP share plan, LTIP share matching plan, etc. The score is then calculated by averaging the equity based compensation of all executives reported in BoardEx for the focal company. Source: BoardEx Director Report.
Analyst coverage	The number of analyst forecast reports for the focal company. Source: I/B/E/S.
Employee	The total number of employees of the company. Source: Compustat.
Market capitalization	The total market value of equity of the company. Source: Datastream.
Blockholders' direct ownership	The cumulative direct ownership of all shareholders who directly hold over 5% of the company's shares. Source: Datastream and Orbis.
Largest shareholder's total ownership	The total ownership (both direct and indirect) held by the largest shareholder of the company. Thw ownership data are cross-sectional and reflect the most recent information at the time of collecting these data. Source: Datastream and Orbis.
Control wedge	The ratio of the voting rights to the ownership for the largest shareholder of the company. Wedge1 stands for the difference between the voting rights and the cash flow rights of the largest shareholder. Wedge2 stands for the ratio of the voting rights to the cash flow rights of the largest shareholder. Source: Datastream.
Independent director ratio	The ratio of the number of all independent directors to the number of all directors on the board. Source: BoardEx.
Female CEO	The dummy variable equals one if the CEO of the company is female. Source: BoardEx.
CEO international work	The dummy variable equals one if the CEO of the company worked in another country before the current position. Source: BoardEx.
CEO overseas education	The dummy variable equals one if the CEO received education degrees overseas. Source: BoardEx.
ROA	Return on assets: net income divided by total assets. Source: Compustat.
Tobin's Q	The ratio of the market value of equity to the book value of equity of the company. Source: Compustat.
Financial constraints	Measured by the ratio of the change in short-term investment to the change in operational cash flow. Source: Compustat.
Interest coverage	Earnings before interests and taxes (EBIT) divided by interest expenses. Source: Compustat.
Financial slack	Current debts divided by current assets. Source: Compustat.
CapEx to sales ratio	The ratio of capital expenditure to the total sales revenue, a measure following Berger and Ofek (1995). Source: Compustat.
Firm size	The book value of total assets of the firm. Source: Compustat.
Firm age	The number of years since the firm's year of incorporation. Source: Datastream.

Dividend per share	Rolling 12 month dividend per share (adjusted). It is intended to represent the anticipated payment over the following 12 months and for that reason may be calculated on a rolling 12-month basis, or as the "indicated" annual amount, or it may be a forecast. Special or once-off dividends are generally excluded. Dividends per share are displayed gross, inclusive of local tax credits where applicable, except for France, Belgium, Ireland and the UK, where dividends per share are displayed net. Source: Datastream
ROE	Return on equity: net income divided by total assets. Source: Compustat.
Annual sales growth rate	One-year annual growth rate of sales revenue of the firm. Source: Datastream.
Largest shareholder's ownership	The percentage ownership of the single biggest owner (by voting power). Source: Datastream (ASSET4).
Sustainable country rating	Country-level sovereign ESG scores and benchmarks based on 120 ESG risk and performance indicators in three domains: (1) environmental protection, (2) social protection and solidarity, (3) rule of law and governance. Countries are graded on a scale of 100 on their commitment and performance in these indicators (e.g., ratification of the Kyoto convention, the Vienna convention, the Stockholm convention, CO2 emissions per head, Gini index, etc). Source: Vigeo.
Entrenchment Index 1	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a upermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions. Non-available values are treated as missing. Source: Datastream.
Entrenchment Index 2	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions. Missing values are treated as zeros. Source: Datastream.
Entrenchment Index 3	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a staggered board (the terms of board members are uniform), and (5) other anti-takeover provisions. Missing values are treated as zeros. Source: Datastream.

Chapter 3. Concentrated Wealth and Stakeholder Value

Hao Liang [27]

Abstract

In the majority of firms around the world, corporate ownership is very concentrated, and is especially held by wealthy families and states. In this paper, I investigate the effects of family- and state-control on stakeholder value as proxied by a firm's engagement in and compliance to corporate social responsibility (CSR) issues. Using extensive public and proprietary CSR data on firms in 60 countries, I find that: (1) Ownership concentration has a significant but non-linear impact on stakeholder value but not shareholder value. (2) The type of controlling shareholder has a strong impact on stakeholder value: family-controlled firms have significantly worse CSR performance, whereas state-controlled firms have significantly better CSR performance. (3) The CSR performance is lowest in family firms where family members — especially of the second and following generations — serve as CEOs, and CSR performance is highest in state firms with politically-connected CEOs. (4) The negative effect of family-control on stakeholder value further translates into lower firm value, whereas the positive effect of state-control does not lead to higher firm value. All results survive after controlling for various country- and firm-level factors as well as country, industry, and year fixed effects, implementing an instrumental variable strategy, and performing quasi-natural experiments to get proper identification. My findings entail a critical evaluation on the role of family-control on corporate social responsibility and a more benevolent view of government ownership in dealing with market externalities.

Keywords: Ownership Concentration, Family-Control, State-Control, Corporate Social Responsibility, Shareholders Value, Stakeholder Value

JEL Code: D23, G30, M14

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"... [B]*ut I am sure that Mexico is much better off with [Carlos] Slim's contribution in running businesses well than it would be without him*"

—Bill Gates, Comments on *Why Nations Fail: The Origins of Power, Prosperity, and Poverty* on February 26, 2013

Introduction

Modern corporations typically face two fundamental tradeoffs. The first is the tradeoff between a dispersed ownership structure and a concentrated ownership structure—especially around wealthy families and states (La Porta, Lopez-de-Silanes, and Shleifer, 1999; Morck, Stangeland, and Yeung, 2000; Claessens, Djankov, Fan, and Lang, 2002; Faccio and Lang, 2002; Morck, Wolfenzon, and Yeung, 2005)—which concerns whether the founder/controller wants to give up some equity stakes to other investors (Bebchuk & Roe, 1999; La Porta et al., 1999). The second is the tradeoff between shareholders and other stakeholder (Tirole, 2001; Allen, Carletti, and Marquez, 2009; Benabou and Tirole, 2010), which concerns the decision of engaging in activities that generate highest financial returns versus engaging in social responsibility that increases stakeholder welfare, sometimes at the cost of sacrificing financial returns.

These two tradeoffs create four quadrants of relationships between control and value, as shown in Figure 1: (1) the relationship between dispersed ownership and shareholder value, which focuses on agency conflicts between managers and shareholders (e.g., Jensen & Meckling, 1976; Jensen, 1989; Shleifer & Vishny, 1997); (2) The relationship between concentrated ownership and shareholder value, which focuses on conflicts between controlling shareholders and minority shareholders (e.g., Shleifer & Vishny, 1997; Bebchuk, Kraakman, & Triantis, 2000; Morck, Stangeland, & Yeung, 2000; Claessens et al., 2002; La Porta et al., 2002); (3) The relationship between dispersed ownership and stakeholder value, which focuses on conflicts between manager and stakeholders as in the traditional stakeholder theory (e.g., Freeman, 1984; Dyer and Whetten, 2006); (4) The relationship between concentrated ownership and stakeholder value, which focuses on conflicts between controlling shareholders and other stakeholders (e.g., Barnea & Rubin, 2010). While the first three relationships have been well documented in the literature, studies on the fourth quadrant are rather scarce. This scarcity echoes some theoretical and empirical puzzles in economic and management research. For example, many studies argue that controlling shareholders such as wealthy families and the states can expropriate minority shareholders, thus

their holding companies suffer from poor financial performance and value discount. However, large shareholders themselves would internalize the costs of value discount, which implies that they have incentives to increase firm value (Morck, Shleifer, and Vishny, 1988; Claessens, et al., 2002). Such puzzles may indicate that firm value incorporates aspects other than pure shareholder value such as stakeholder value (Jensen, 2001), or that mechanisms of how controlling shareholders affect firm value are different, or at least more complicated, than what has been known in the literature.

[Insert Figure 1 about Here]

It has been widely accepted that ownership structures are among the foremost important factors in driving corporate policies and valuation (e.g., Cronqvist & Fahlenbrach, 2009). Ownership structures are important along two dimensions: the first is how much the ownership is concentrated, and the second is who actually owns the firm (ownership heterogeneity). These two questions have been answered in the groundbreaking work of La Porta et al. (1999), which found that ownership is very concentrated worldwide, and such concentration is mostly around wealthy families and the states, who themselves are key corporate stakeholders (Freeman, 1984). Therefore, the effects of ownership concentration on other stakeholders' welfare is an important yet largely unexplored question. In this context, corporate social responsibility (CSR) is an ideal ground for disentangling and testing the effects of ownership concentration and ownership heterogeneity, as different owners may have different non-financial preferences, and CSR better captures such preferences. Therefore, the focus of this paper is on the effects of family-control and state-control— both their type and the degree of their ownership concentration— on corporate stakeholder value as measured by CSR performance.

The deficit of research in the aforementioned fourth "quadrant" may be largely due to the fact that cross-country firm-level data on "stakeholder value" did not exist until recently, though ownership concentration is predominant worldwide (La Porta et al., 1999) and cross-country ownership data have already been extensively used in the academic literature. In recent years, some data providers such as MSCI, Vigeo, and Thomson Reuters have begun to merge with other data companies and consolidate data on CSR and societal sustainability from different countries under unified rating metrics. These ratings focus on firms' engagement in and compliance to key environmental, social, and governance (ESG) issues, and are believed to be best representative for stakeholder value (Deng, Kang, & Low, 2013). In this paper, I make use of these new data to investigate the relationship between corporate ownership concentration and stakeholder value on

a global scale, and how it is related to and different from the relationship between ownership concentration and traditional shareholder value.

There are some disclaimers before I further proceed. First, the focus of this paper is on family-controlled firms and state-controlled firms, as they account for the majority of firms with controlling shareholders in many crucial sectors worldwide. For example, the majority of media around the world are owned by the state and by the controlling families (Djankov, Mcliesh, Nenova, and Shleifer, 2003). Other types of controlling shareholders, such as banks, hedge funds, private equity, insurance companies, etc., are far less prevalent as families and states (La Porta et al., 1999; Faccio and Lang, 2002; Claessens et al., 2002), thus their effects are not particularly investigated in this paper. Second, the family- and state-controlled firms in my sample are very large corporations, similar to those in La Porta et al. (1999), rather than small and medium-sized family firms or governmental vehicles. In this sense, the context of this study is on large firms that are included in major equity indices and dominant in the global economy, and my results mostly speak of the effects of such large firms rather than small ones. Third, I am well aware of the deficiencies of existing cross-country CSR ratings, thus have tried my best to find the most objective data sources that give ratings based on the relative performance of the firm to its industry peers, rather than based on differences across countries and jurisdictions. They also reflect both *engagement* and *compliance*, and both the firm's commitment to ESG issues and the effectiveness of its actions. The current sample I use— Thomson Reuters' ASSET4— is probably the best data that one can have in order to study the issue of stakeholder value. Another typical critic on these commercial ESG ratings is that there is a black-box aspect to the scores. Unlike an extra dollar of charitable donations, it is unclear what exactly an increase in the score represents, and as a result, there is skepticism about what exactly these scores capture. Nevertheless, there is mounting evidence in the literature that these CSR scores are indeed informative of stakeholder value, as they are strong predictors of firms' future pollution and environmental regulatory violations (Chatterji, Levine, & Toffel, 2009), donations (Cheng, Hong, & Shue, 2013), the values of investors and CEOs (Di Guili & Kostovetsky, 2011), and easier access to finance (Cheng, Ioannou, & Serafeim, 2014). Therefore, I am confident with the quality of the extensive CSR data, which has also been used in Ioannou & Serafeim (2012) and Cheng et al. (2014). Also, as shown in the following empirical section, those results are consistent throughout various robustness tests and across different (unreported) CSR datasets.

Family, State, and Stakeholder Value

Wealth Concentration in the Hands of Wealthy Families and Powerful States

Business history is replete with examples of spectacular ascents of wealthy family controlling for the large corporate sector, such as Sabanci family in Turkey, Berlusconi family in Italy, Heineken family in the Netherlands, Carlos Slim family in Mexico, Lauder family in France, Li Ka-Shing family in Hong Kong, Merck family in Switzerland, and the Rothschild family in the United Kingdom. Examples of powerful state controlling for a large part or the whole economy also abound, such as the Communist-party-led government in China, GIC and Temasek in Singapore, Government Pension Fund of Norway, and the Russian national wealth fund and reserve fund which own large oil companies. The Italian government holds direct and indirect stakes through the largest oil, gas, electricity, carrier, and aerospace and defense companies in Italy (Bortolotti & Faccio, 2009). These wealthy families and states, along with other types of ultimate owners such as banks, foundations, and various financial institutions, represent different types of important stakeholders in society. Families and states typically have control power over firms that are significantly in excess of their cash flow rights, primarily through the use of pyramids and participation in management (Bebchuk et al., 2000). In addition, family-control and state-control often reinforce each other: many of a country's leading politicians are also members of the same powerful families that control their largest firms (Faccio and Lang, 2002; Faccio, 2006; Morck and Yeung, 2004; Fogel, 2006).

The economics literature generally focuses on the financial performance of wealthy family- and state-controlled firms to gauge their welfare implication— mostly the welfare of shareholders measured by firm valuation (e.g., Tobin's Q). However, no conclusion has been reached regarding whether family-control or state-control is associated with higher or lower shareholder value, especially on a global scale (e.g., Anderson & Reeb, 2003; Perez-Gonzalez, 2006; Bennedsen, Nielsen, Perez-Gonzalez, & Wolfenzon, 2007; Khanna & Yafeh, 2007; Masulis, Pham, & Zein, 2011; Lins, Volpin, & Wagner, 2013). Moreover, in theory, both types of firms emerge largely *not* for the pure pursuit of financial returns. State-owned firms emerge to deal with negative externalities and market failure, and family-controlled firms emerge because of the inheritance cultures and norms of maintaining blood kin in control and the long-term survival of their businesses (Donnelley, 1964). Therefore, using financial returns and shareholder value maximization as value criteria for firms with significant wealth concentration in the hands of wealthy families and states may not be appropriate to judge their overall welfare implications. By

far, little is known about whether concentrated wealth by families and states really trades off shareholder welfare and stakeholder welfare, and if so, the mechanisms of how they make such tradeoffs, and what are the implications on stakeholder value besides shareholder value.

Corporate Social Responsibility and Stakeholder Value

The topics of CSR and stakeholder value abound in the academic literature, but the questions as to whether corporations should engage in CSR, whether CSR represents stakeholder value, and whether stakeholder value is incorporated into firm value have long been fiercely debated (Macintosh, 1999). Economists' view of how society should be organized has traditionally rested on the assumption that corporations' responsibility is to pursue economic efficiency and profit-maximization, and they have no reason to fit the society's moral standards (Friedman, 1970; Benabou and Tirole, 2010). Mainstream economics has thus long embraced the shareholder-value approach, which argues that firms should be controlled by profit-maximizing shareholders while other stakeholders are protected by contracts and regulations. However, in reality, CSR is often deemed as material by corporate executives and even shareholders, and has been increasingly becoming a mainstream business activity. Firms are investing more and more resources in public goods provision, and many companies reduce negative externalities below levels required by law.[28] In addition, numerous empirical studies have documented that CSR is closely linked to better firm performance (e.g., Lee and Faff, 2009) and higher shareholder value (e.g., Edmans, 2011; Deng, Kang, and Low, 2013; Dimson et al., 2013). Benabou and Tirole summarize this trend as: "caring about the environment, the welfare of people in poor countries, and other good causes is a normal good….the richer our societies, the higher the demand for [socially responsible behavior]." (2010: 16).

In the original stakeholder theory of Freeman (1984), "stakeholder value" is created through corporations engaging in social responsibility (Freeman, Wicks, & Parmar, 2004). In practice, the "stakeholder value" criterion has formed the foundations of many CSR standards and initiatives such as ISO 26000 and Global Reporting Initiative. Many empirical studies also document that various CSR practices are strongly associated with "value", which is usually measured by financial returns, profitability, productivity and operational efficiency, and welfare (Chatterji et al., 2009; Deng, Kang, & Low, 2013; Edmans, 2011; Larkin, 2013; Cheng et al., 2014; Eccles, Ioannou, & Serafeim, 2014). Overall, the close link between CSR and stakeholder value

[28] For example, according to a survey by Kitzmueller and Shimshack (2012), more than half of Fortune Global 250 firms now provide regular public statements exclusively discussing CSR, and more than one-third of large firms have voluntary external certifications for social and environmental standards, and nearly 11 percent of professionally managed U.S. investment was certified as socially responsible.

have been established both theoretically and empirically. However, even if one accepts that CSR signifies stakeholder value, the relationships between concentrated ownership and CSR are still theoretically ambiguous. Therefore, before I systematically assess these relationships, I first briefly review below the different theoretical predictions on the effects of family-control and state-control on stakeholder value.

Concentrated Wealth and Stakeholder Value

Theoretically, the effects of corporate wealth concentration on stakeholder value can be both positive and negative, and such effects are further complicated by different types of ownership. On the positive side, concentrated ownership helps reduce managerial entrenchment, opportunism and myopia (Fama and Jensen, 1983), thus leads to higher stakeholder value. For family-controlled firms, the unique ownership structure gives them a long-term orientation and insulates their managers from opportunistic shareholder pressures (Kachaner, Stalk, & Bloch, 2012). They also have higher levels of trust from key stakeholders compared to traditional public firms (Donnelley, 1964), and care more about their image and reputation among stakeholders (Dyer and Whetten, 2006). In addition, family-CEOs usually have hard-to-obtain, firm-specific knowledge that professional CEOs lack (Cadbury, 2000). Moreover, the pyramid structure of family business groups can create financing advantages for affiliated firms under poor institutions and capital market conditions (Khanna and Palepu, 2000; Khanna and Rivkin, 2001; Masulis et al., 2011). For state-controlled firms, their legitimacy is rooted in the idea that these organizations were created by state capital, managed by political apointees, and chartered to serve the collective good of the country and society at large, even at the cost of their own financial profits (Shleifer and Vishny, 1998). This perception is closely related to the so-called "public interest theory" (or "Pigouvian theory", Pigou, 1938), which argues that governments aim to maximize the welfare of the society, as the benevolent social planner can efficient allocate resources and prevent market failure. In this sense, government ownership as a way for the state to provide public goods is beneficial for broader stakeholders in a society. Therefore, even though state-owned firms (SOEs) underperform financially, this is largely due to the fact that they trade off shareholder value with stakeholder value, thus they should outperform socially.

On the negative side, large shareholders have the incentives to expropriate the interests of minority shareholders and other stakeholders, resulting in lower stakeholder value. For family-controlled firms, the expropriation view argues that wealthy families are highly self-interested and merely want to protect their own parochial interests, which is termed as "amoral familism" by Banfield (1958) and Fukuyama (1995). The controlling rights that are not commensurate to cash

flow rights protect the controlling families from losing power, thus allow their entrenchment and extraction of private benefits from the firm's assets at the cost of other investors (La Porta et al., 1999; Burkart, Panunzi, and Shleifer, 2003; Morck & Yeung, 2003, 2004). Therefore, families that own various enterprises would not be inclined to improve the welfare of the broader society in which their firms are embedded (Morck and Yeung, 2004). In other words, entrenched billionaires have a vested interest in preserving the value of old capital and control, thus crowd out other stakeholders. For state-controlled firms, the negative view is closely related to the so-called "public choice theory", which considers SOEs as rent-seeking tools for politicians and bureaucrats (Tullock, 1967; Shleifer, 1998). Under this view, political elites who control SOEs seek rents from the society at the costs of other stakeholders, which can reduce economic efficiency through corruption, poor resource allocation, reduced innovation and wealth creation, and increased inequality (Olson, 1963, 1982; Krueger, 1974; Shleifer and Vishny, 1993; Shleifer, 1998). Similar control pyramids and superior voting shares let the state controls the greater part of a country's large corporate sector and stymie the institutional development (Morck, Wolfenzon, and Yeung, 2005). Therefore, despite their easier access to finance and stronger market power, state-owned firms should underperform socially due to their lack of managerial incentives and politicians' rent-seeking through SOEs (e.g., Megginson, Nash, and van Randenborgh, 1994; Faccio, 2006).

In summary, the relationship between stakeholder value and wealth concentration by families and states is rather ambiguous. By far, little is known about the direct impact of wealth concentration by families and states on stakeholder value, let alone its association with shareholder value. Between long-term orientation, expropriation, public interest, and public choice, the net impact of family- and state-control on stakeholder welfare is a matter of empirical investigation. While I recognize the family- and state-control could impact the stakeholder value in multiple ways, my focus is on the *net* effect. First, I believe that the overall effect is of ultimate interest to the debate on the role of wealthy families and states in society. Second, I realize the empirical difficulty in measuring the relative contribution of the different effects. Nevertheless, I try to explore several governance mechanisms as potential channels that may explain the effects of control on CSR, which may shed light on the relevance of different effects. In the next section, I will empirically disentangle the mechanisms and impact of concentrated wealth on both shareholder value and stakeholder value to reconcile the above views and offer a more holistic assessment of their net impact.

Data and Methodology

Data

As mentioned above, I use a firm's CSR ratings as proxies for its "stakeholder value". The primary CSR data is from Thomson Reuter's ASSET4 ESG database. The ASSET4 sample covers more than 4500 global publicly listed companies that are included in the S&P 500, Russell 1000, NASDAQ 100, MSCI Europe, FTSE 250, ASX 300, STOXX 600, the MSCI World Index, the MSCI Emerging Market index, among other major equity indices. Its ratings consist of more than 750 environmental, social, and corporate governance (ESG) data points, including all exclusion (ethical screening) criteria and all aspects of sustainability performance. Every data point goes through a multi-step verification process, including a series of data entry checks, automated quality rules and historical comparisons. These data points reflect more than 280 key performance indicators and are rated as both a normalized score (0 to 100) and the actual computed value. It covers a time span from 2002 to 2012. All ratings are provided at the corporate subsidiary-level and on a yearly basis. For all companies, at least 3 year of history is available, and most companies are covered for 10 years. It is worth mentioning that firms in the ASSET4 sample are rated based both on their ESG compliance (regulatory requirements) and on their ESG engagement (voluntary initiatives), and according to both their commitment to these ESG issues and the effectiveness of their endeavor. Therefore, the CSR ratings reflect a comprehensive evaluation of how a firm engages in stakeholder issues and complies with regulations. To make better statistical inference, I use the normalized CSR score in all the analyses. The detailed compositions, as well as the country and industry coverage of the ASSET4 sample are reported in the Appendix.

One may raise the concern that the ASSET4 world sample is biased toward certain countries such as the U.S. However, as described above, the sample exclusively follows major equity indices that cover the largest companies around the world, as those in other cross-country studies. Undoubtedly, companies in the U.S., U.K. Japan and Germany are on average larger than companies from other countries. My further check of the data confirms that almost all major multinational corporations in Fortune 1000 are in the sample. Therefore, the results from my sample can be interpreted as CSR for the world's largest companies regardless of their countries, which is consistent with the perception that large firms have bigger social impact. To further validate my results from the ASSET4 sample, I conduct similar tests on Vigeo's corporate ESG sample, which mainly measures firm CSR compliance, and on MSCI's Intangible Value

Assessment (IVA) sample, which mainly measures firm CSR engagement. The results (unreported) are very similar to those obtained from the ASSET4 sample.

Data on family control, state control, and identifiers of other types of ultimate owner are from Bureau van Dijk's Orbis database. "Ultimate control" is defined as above a 25% threshold of ownership stake at every level along the pyramidal control chain. Besides, I manually collected data on executives' backgrounds of family- and state-controlled firms from BoardEx, annual reports, and online media such as Forbes and BusinessWeek. In particular, I classified family-controlled firms into several categories following the literature (e.g., Villalonga & Amit, 2006; Perez-Gonzalez, 2006; Bennedsen et al., 2007): (1) founder-CEO firms, (2) heir-CEO firms, (3) professional-CEO firms, and (4) family/founder-chairman firms. I classified state-controlled firms into two categories: (1) politician-CEO firms (the CEOs have political backgrounds), and (2) professional-CEO firms.

Firm-level time-series data on the extent of ownership concentration (the percentage of ownership stakes of the largest owner) and the "wedge" (difference) between the voting rights and cash flow rights of the largest owner are obtained from Datastream. Data on firm financials are from Datastream and Compustat. Moreover, data on various corporate governance indicators are also from Datastream. Country-level data on GDP per capita and political institutions are from World Bank, and that on globalization are from ETH KOF Index of Globalization. Finally, cultural data are from World Value Survey and the Hofstede Cultural Dimensions.

Empirical Strategy

My sample is a balanced panel with missing observations, which consists of 4,456 firms over 2002-2013. For the tests on shareholder value, the dependent variable is Tobin's Q, which is measured either as the market-to-book ratio of equity or as the market-to-book ratio of assets, and the independent variables include ownership structures (family- and state-control dummies, the cash flow rights of the largest owner, etc.) and those standard financial variables as used in the literature. For the tests on stakeholder value, the dependent variables are various CSR ratings capturing different aspects of stakeholder value (the overall rating, the environmental rating, and the social rating), and the independent variables are ownership structures as before and other firm-level financial variables (such as ROA, Tobin's Q, dividends per share, earnings per share, firm size, firm age, and leverage ratio) and country-level economic variables (such as GDP per capita and globalization).

To correct for within-economy correlations, I use a random-effects specification that assumes each sample has a common explanatory variable component, which may differ across economies. That is, I do not treat corporations in a given economy as independent observations, and this specification takes explicit account of the correlated errors among my observations within an economy and produces consistent standard errors. Moreover, a random-effects specification is preferable to fixed effects when the sample represents the population, which is the case in my setting as my CSR sample covers the whole world. Nevertheless, I control for country fixed effects, which largely eliminates the simultaneity concern that ownership concentration and stakeholder value are jointly determined by legal systems, political institutions, and cultural norms. I also control for industry and year fixed effects, given that CSR and Tobin's Q can be industry-specific and are also influenced by year-specific events. Standard errors in all regressions are clustered at the firm level.

In addition, I use an instrumental variable approach by instrumenting family- and state-controls with country-level legal and cultural variables. I also conduct a quasi-natural experiment on a global scale by using the signature of the Copenhagen Accord as an exogenous shock to corporate environmental awareness worldwide and compare whether family- and state-controlled firms reacted differently in relation to other firms.

The descriptive statistics of the key dependent variables and explanatory variables are shown in Table 1. A correlation check between different explanatory variables suggests that none of the variables are highly correlated, thus the multicollinearity issue is not a concern.

[Insert Table 1 about Here]

Results

Descriptive Analysis

In this section, I empirically test the different theoretical predictions on the relationship between concentrated ownership— family- and state-control— and stakeholder value as outlined above. Before moving to the regression analysis, I first explore the nature of the data, particularly how CSR and various governance provisions differ across different types of ultimate owners.

Table 2 descriptively shows the mean value of each CSR rating and governance provision across different owner types: wealthy family (or individual), state, bank, corporation (industrial

company), financial institution (institutional investor), insurance company, mutual fund or pension fund, private equity, foundation or research institution, manager, and no ultimate owner (widely-held firms). This division of ultimate owner directly follows the standard classification in the literature (e.g., La Porta et al., 1999; Faccio & Lang, 2002; Claessens, Djankov, & Lang, 2000; Cronqvist & Fahlenbrach, 2009). One may notice that firms that are ultimately owned by foundations or research institutions, managers, and private equity are of special cases, both due to their limited observations and the special purposes or financial situations of these firms. Therefore, my focus is on the rest of ultimate owners, except these three.

Several interesting observations emerge from Table 2. First, despite the massive ongoing privatization and market development worldwide over the last three decades and fifteen years after the publication of the paper by La Porta et al. (1999), ownership across the globe is still very concentrated— even among the world's largest multinational corporations. The average cash flow right by the largest shareholder is 22%, and the median is 13.6%, and some companies are 100% owned by a single large shareholder. Second, ownership is mostly concentrated around wealthy families and states. On average, families own more than 40% of corporate assets, and the states own almost 48% (the median is almost 51%) of corporate assets. Other types of ultimate owners on average own considerably less: banks own 19%, institutional investors (other financial institutions) own 24.8%, industrial companies own 15.8%, insurance companies own 15.6%, mutual funds own 24.3%, and private equity and venture capital own 22%. The largest owner's voting rights are also very concentrated around families (46.18%) and states (47.53%)— much higher than other types of owners— while the difference between family control and state control is very marginal (7.8% for cash flow rights and 1.35% for voting rights).

However, in terms of CSR performance, a different picture is shown. For the aggregate CSR rating, the environmental rating, and the social rating, family-controlled firms score relatively low (42.91), while state-controlled firms score relatively high (55.25). Firms owned by banks, institutional investors, and industrial companies score more or less in the middle of the spectrum. Firms controlled by mutual funds on average score even lower than those controlled by family, which is consistent with the notion that these active investors usually seek for quick exit from their investment and thus care less about long-term investment and stakeholder relationship. For the environmental rating and the social rating, very similar orders of CSR ratings across different types of owner are found, except that firms controlled by institutional investors score slightly lower than those controlled by families. The differences between family control and state control range from 13.15 (for the aggregate CSR rating) to 15 (for the environmental rating) on a scale of 100, which is economically large. In unreported t-tests, such differences are also statistically significant, unlike

the differences in cash flow rights and voting rights. These descriptive statistics seem to indicate that while ownership and power concentration are similar between family control and state control, their focuses on stakeholders are fundamentally different, which we will further investigate in the next section.

Fourth, I also compare in Table 2 the differences across different ultimate owners along several dimensions of corporate governance. Similar to voting rights, veto power or golden shares are also much more concentrated around families and states than other owners. Dual-class shares and multiple voting rights are commonly used in family-controlled firms, but not in state-controlled firms and other ones. The wedge between voting rights and cash flow rights of the largest owner is much larger in family-controlled firms, but very marginal in state-controlled firms and other firms. In addition, with my ASSET4 sample I am able to construct a global entrenchment index (E-index) from Datastream (ASSET4) that is similar to the US E-index constructed by Bebchuk, Cohen, & Ferrell (2009), which I will explain its use in the next section.[29] Among firms with concentrated ownership, the E-index is significantly lower in family-controlled and state-controlled firms than in firms that are ultimately controlled by banks, insurance companies, institutional investors, industrial companies, mutual funds, private equity, etc. The uses of other governance provisions also differ significantly across different types of owners, and their roles will be discussed in more details later on in the regression analysis.

[Insert Table 2 about here]

Regression Results

The focus of this paper is on the ownership foundations of corporate tradeoff between shareholder value and stakeholder value. Therefore, the main explanatory variables are those ownership-related ones. More specifically, to test the *ownership heterogeneity* effect, I include in the baseline regressions two dummy variables, one indicating whether the ultimate owner of the firm is a wealthy family (or individual), and the other indicating whether the ultimate owner is the state. To test the effect of *the degree of ownership concentration*, I include the cash flow rights of the largest owner, the square of the largest owner's cash flow rights, and the wedge between voting rights and cash flow rights of the largest owner. As mentioned earlier, due to the stability of the control structure by families and states over time, controlling for firm fixed effects is not feasible, as it will

[29] For example, ASSET4 contains variables that capture the presence of: (1) a poison pill; (2) a golden parachute; (3) a staggered board, (4) other anti-takeover devices, and (5) supermajority requirements for both amending charters and amending bylaws.

inevitably omit the family- and state-control dummies. Alternatively, in all regressions, I control for country-, industry-, and year-fixed effects to eliminate concerns on alternative channels to the largest extent.

Ownership Concentration and Shareholder Value

Before testing the effects of ownership concentration and identity on stakeholder value (CSR), I first test their effects on *shareholder* value as proxied by Tobin's Q. The aim is also to compare my (more comprehensive and potentially more rigorous) results with the results in the existing literature. I include the typical set of control variables that are used in the literature (e.g., Claessens et al., 2002; Bebchuk et al., 2009). The results are reported in Table 3, with Column 1 only including the ownership heterogeneity variables (family- and state-control dummies), Column 2-3 only including only the ownership concentration variables (the combination between largest owner's cash flow rights and its square, and the wedge between voting and cash flow rights), Column 4-5 including both (but Column 5 does not control for industry fixed effects and firm-level covariates so as to be more comparable to the specifications in previous studies), Column 6-8 including all control variables and fixed effects, but with different Q measures as the dependent variable.

As shown in Columns 1-4, none of the coefficients of the ownership heterogeneity dummies (family-control and state-control) and the ownership concentration variables (cash flow rights, voting rights, and the wedge between voting and cash flow rights of the largest owner) are statistically significant, though the correlations between ownership heterogeneity variables and ownership concentration variables are not high (26-29%). This is an interesting result, especially compared with several cross-country studies on corporate ownership with comparable sample sizes and firm coverage (mostly large firms on major equity indices, e.g. La Porta et al., 1999; Claessens et al., 2002). Without controlling for industry fixed effects and firm-level covariates (Column 5), family-control is associated with higher Tobin's Q, and state-control is associated with lower Tobin's Q, both are consistent with the empirical literature (e.g., Villalonga & Amit, 2006; Dewenter & Malastesta, 2001). Such inconsistency with the existing studies on the significance of ownership effects may seem surprising, but as argued by Petersen (2009), many existing empirical studies are subject to the problem of not empirically taking into account of correlations across groups and over time by clustering standard errors at the appropriate level. In addition, most cross-country studies have a cross-sectional setting, which may not fully capture unobserved common characteristics at the country, industry, and year levels through controlling for fixed effects. Understandably, controlling for year-, industry-, and country-fixed effects may be necessary for my empirical setting, given that country and industry characteristics explain much of the variations

in shareholder value in the literature (e.g., Claessens et al., 2002; Doidge, Karolyi, & Stulz, 2007). Very similar results on the insignificance of ownership are found when all variables are pooled together (Column 7), and when the dependent variable Tobin's Q is measured as the market-to-book ratio of assets, either winsorized (Column 8) or unwinsorized (Column 9). In addition, the coefficients and economic significances are comparable to the empirical findings in cross-country studies such as Claessens et al. (2002), but smaller than those in US studies such as Villalonga & Amit (2006), which is consistent with the findings that US companies (or common law companies) have higher Tobin's Q in general (Doidge et al., 2007). On the contrary to ownership effects, much of the variation in Tobin's Q seems to be explained by traditional corporate finance variables (size, capital expenditure, sales growth, leverage, etc) and country-level GDP per capita, as their coefficients are mostly statistically significant.

Besides the potential differences in econometrical treatments through clustering standard errors and controlling for country-, industry-, and year-fixed effects between my results and results in several existing studies, one may simply interpret the "insignificant" results of ownership and control as that they do not matter for shareholder value. It might be the case, but such explanation also goes against the theoretical arguments and empirical findings in extant studies. Another explanation may be that the effects of family- and state-control on firm value differ significantly across countries, and my results merely reflect the aggregate effects of all countries. In unreported regressions, I conducted the same tests on regional subsamples as in the previous studies: (1) the subsample of US firms; (2) the subsample of non-US firms; (3) the subsample of firms in the US, UK, and Australia (dispersed ownership countries); (4) the subsample of firms in countries other than US, UK, and Australia; (5) the subsample of firms in Eastern Asian countries as in Claessens et al. (2000); (6) the subsample of firms in Western European countries as in Faccio and Lang (2002). The results from these subsample tests are very similar to those from the global sample in Table 3: the coefficients on family- and state-control dummies and the largest owner's cash flow rights are mostly insignificant, and that on financial control variables are mostly significant, which refute the "aggregate effects" explanation. A more reasonable explanation might be that my results reflect the equilibrium of costs and benefits of family- and state-control. For family control, the insignificance of ownership may be due to the fact that the benefits of family ownership are offset by the costs of family excess vote-holdings and expropriation. For the effects of state control, existing empirical results are limited, but the similar arguments may apply. In sum, my results on the largest global companies worldwide suggest that the relationship between ownership structure

and shareholder value is rather insignificant.[30] The next question is: would this also be the case for *stakeholder* value?

[Insert Table 3 about Here]

Ownership Concentration and Stakeholder Value

To answer the above question, I then move to the effects of ownership on firm-level CSR ratings. Understandably, the set of control variables are different from that in the Tobin's Q regressions, and the choice of control variables is made by following the literature on "doing good by doing well" and on global CSR (e.g., Hong, Kubik, and Scheinkman, 2012; Ioannou and Serafeim, 2012; Liang and Renneboog, 2014). The results are shown in Table 4, with Column 1-6 reporting the results from pooling ownership heterogeneity and concentration variables together, while Column 7-8 also including their interactions (but not the interactions with the square of largest owner's cash-flow rights). The dependent variables are aggregate CSR rating, the environmental rating, and the social rating, respectively, as indicated at the top of each column. Columns 1, 3, and 5 include all control variables, which inevitably reduce the number of observations, while Columns 2, 4, and 6 exclude a few economically duplicated control variables (e.g. ROA as an alternative measure of "doing well", Log(assets) as a measure of firm size, and Globalization as an alternative measure of economic development) to preserve the number of observations.

Several interesting observations emerge. First, among various covariates, the ownership variables— family-control dummy, state-control dummy, largest owner's cash flow rights and its square, are the most significant ones throughout Columns 1-6, while that of other financial control variables are mostly insignificant, or at least their significances and signs are mixed. This indicates that much of the firm-level variation in CSR stems from ownership structures, both ownership heterogeneity and ownership concentration. Second, among these ownership variables, the coefficient on largest owner' cash flow rights (largest shareholder's ownership) is negative and significant, while the coefficient on its square is positive and significant. This is consistent with the findings on the non-linear effects of ownership concentration in the literature (e.g., Morck et al., 1988; Cleassens et al., 2002; Bebchuk et al., 2009). Combining this result with the previous results in Table 3, while the previous studies find that insiders' (including large shareholders') ownership

[30] Though without taking into account industry-specific effects and firm-level factors, family-control is associated with higher firm value, while state-control is associated with lower firm value.

is non-linearly associated with shareholder value, as measured by Tobin's Q, my analysis— after clustering standard errors and controlling various fixed effects— reveals that such non-monotonicity of ownership effects are mainly manifested on the value of stakeholders (which includes shareholders) but not on that of shareholders. The wedge between voting rights and cash flow rights of the largest owner, a proxy for large shareholders' entrenchment and expropriation (Claessens et al., 2002), is negatively associated with CSR ratings. Economically, a one-standard-deviation increase in the wedge between voting and cash flow rights lead to 0.01% decrease in the overall CSR rating, which is marginal. Third, regarding the effects of ownership heterogeneity, the coefficient on the family control dummy is negative and statistically significant, while that on state-control dummy is positive and significant. The economic magnitude is non-trivial: ceteris paribus, a firm controlled by wealthy family on average scores more than 7.5 grades lower (on a scale of 100) in the overall CSR rating compared to other firms, and more than 6 grades lower in both the environmental and the social ratings. These results seem to give support to the negative view (expropriation theory) of family control, but to the positive view (public interest theory) of state control.

Regarding the sign and significance of the coefficients on other control variables, those on Tobin's Q (market-to-book ratio of equity) and ROA are mostly positive in the fully specified models, supporting the "doing good by doing well" hypothesis. A one standard deviation increase in Q is associated with 0.7 (=0.397×1.757) percentage increase of the overall CSR rating, 0.5 (= 0.298×1.757) percentage increase of the environmental rating, and 0.9 (0.500×1.757) percentage increase of the social rating. Similarly, a one standard deviation increase in ROA correspond to 0.9 (= 0.06 × 14.77) percentage increase in the overall CSR rating, and around 0.15 percentage increase in the environmental and social ratings. Interestingly, "earnings per share" is negatively associated with CSR ratings when interaction terms are included, but are not so without interactions. Even when it's statistically significant, the economic effect is much smaller: a one standard deviation increase in EPS correlates with only 0.01 percentage decrease in CSR ratings. In addition, higher dividend per share—a proxy for good governance for minority shareholders—is positively correlated with CSR, but also with much smaller economic effect (a one standard deviation increase in DPS corresponds to 0.02 percentage increase in CSR). Firm size is also positively associated with CSR rating, supporting the argument that larger multinational companies also take more social responsibilities. Degree of globalization matters for the overall CSR rating, consistent with the trend of convergence in international CSR conventions, but the effects are much weaker (and mostly insignificant) for the environmental and social pillars of CSR. Overall, those financial

and macroeconomic controls are not as strong predictors as ownership variables, and have much smaller economic efffects.

To further investigate different effects of ownership concentration and ownership heterogeneity on stakeholder value, I interact the family- and state-control dummies with the cash flow rights of the largest owner, a proxy for the degree of ownership concentration, as in Columns (7)-(9) of Table 4. Interestingly, none of the coefficients on these interaction terms are statistically significant, indicating that the ownership effects on CSR largely stem from ownership heterogeneity (family-control or state-control), rather than from the incremental change in the controller's ownership stakes. In other words, it is who actually controls the firm, not how much they control, that matters most for stakeholder value.

[Insert Table 4 about here]

Instrumental Variable Strategy

The above results show that CSR is negatively related to family control and positively related to state control, and non-linearly correlates with the degree of ownership concentration. One potential concern is that control and ownership concentration are not exogenous. In particular, more socially responsible firms may also tend to be more (or less) willing to give up ownership to a broader group of stakeholders. Due to the stability of ownership concentration and family- and state-control, dynamic panel data models (dynamic GMM) and other methods using lagged independent variables are not feasible. To address the endogeneity concern, I first explore the exogenous source of ownership concentration in the hands of wealthy families and state by using an instrumental variable approach. The choice of the instruments is a crucial task, since, while they must be highly correlated with ownership concentration, they should not directly influence a firm's CSR engagement. Also, I include more IVs than endogenous ownership variables, such that I can conduct an overidentification test (Sargan-Hansen test) for the validity of IVs.

For state control— together with the largest owner's cash flow rights and its square, and the voting-cash flow wedge— I use four political variables assembled by World Bank: regulatory quality (RQ), political stability and absence of violence (PV), corruption control (CC), and government efficiency (GE), as well as the Stability index from Database of Political Institutions (DPI), as their IVs. The choice of these IVs is motivated by the literature which argues that post-privatization state ownership and control are direct results of regulatory and governmental efficiency, as well as political stability (Roe, 2003; Roe & Siegel, 2011; Boubakri, Cosset, Guedhami,

and Saffar, 2011). Also, stronger corruption control makes political rent-seeking less profitable, leading to less concentrated government ownership (La Porta et al., 2002; Djankov et al., 2003). Similar choice of IVs is made by Boubakri, Cosset, and Saffar (2013).

For family-control and ownership concentration, I use the index measuring a country's collectivism culture and that measuring a country's uncertainty avoidance culture (from Hofstede's cultural dimensions), as well the World Value Survey index on the importance of family in one's life (coded as a dummy variable which equals one if it is classified as a high family value country and zero if classified as a low family value country). Collectivism, as opposed to individualism, concerns individuals' reliance and commitment to their families or extended families. Uncertainty avoidance expresses the extent to which the members of a society feel uncomfortable with uncertainty and ambiguity, and stronger uncertainty avoidance is widely documented to be associated with higher family value (e.g., Mehrotra et al., 2013). Although one may argue that cultures can also influence CSR (e.g., Parboteeah, Addae, & Cullen, 2012; Ioannou & Serafeim, 2012), as shown by Griffin, Guedhami, Kwok, Li, & Shao (2014), the cultural dimensions influence firm behavior and performance primarily through the channel of corporate governance— which includes ownership arrangement— rather than through other direct channels. However, due to the limitation of cultural variables as reasonable IVs, I have to limit the number of endogenous ownership variables to be instrumented in the family-control regressions. Therefore I only instrument family control dummy and the continuous ownership concentration variable (when its square is included, the IV results are similar, though in this "exactly identified" case, it is not possible to test for IV validity because the number of IVs equals the number of endogenous ownership variables).

The results from IV estimation are reported in Table 5. Columns (1)—(6) show the 2SLS results for state control and ownership variables as instrumented variables, and columns (7)—(12) show the 2SLS results for family control and ownership variables as instrumented variables. The previous control variables are included, but not reported to preserve space. Due to the fact that I use country-level IVs, it is not feasible to control for country fixed effects in the first stage. As shown in Table 5, most of the previous results are still upheld: family control is negatively associated with all measures of CSR, and state control is positively related to these CSR ratings. The magnitudes of the coefficients are inflated by 6-8 times— similar to (and smaller than) the estimations in Boubakri, Cosset, and Saffar (2013)— mostly due to the fact that these IVs are at the country-level. The Sargan-Hansen statistics indicate that the null hypothesis (IVs are valid) is not rejected for estimations on state control with overall CSR rating and environmental rating as the dependent variables, which gives some credibility to the IV exclusion restriction. However, for

estimations on family control, the Sargan-Hansen test does not reject the validity of IVs for the overall CSR ratings, but reject that for environmental rating and social rating, which may indicate that those broad cultural measures are likely to influence corporate environmental and social engagement through channels other than family ownership. Of course the IV approach in my empirical setting is not perfect due to cross-country data limitation, but the results are still consistent with previous estimations.

[Insert Table 5 about Here]

The heterogeneous effects of family-control and state-control may seem puzzling, as the majority of the literature on ownership heterogeneity and corporate valuation suggest that wealthy families and states as controlling shareholders are entrenched and expropriate minority shareholders and other stakeholders, thus both of their controlling blocks suffer from a valuation discount. However, according to Claessens et al. (2002), such entrenchment effect should be captured by the wedge variable already. Indeed, the coefficient on the wedge variable is negative and significant, supporting the expropriation view of large shareholders. Then, the question as to what extra factors, beside large shareholder's expropriation and ownership identity per se, explain the different effects is worth further investigation.

Entrenchment as an Alternative Channel?

One of the most widely debated mechanisms of ownership and control on corporate policies is managerial incentive. A classical measure of managerial incentive is the degree of "entrenchment" of managers and corporate insiders, such as the entrenchment index (E-index) constructed by Bebchuk et al. (2009). On one hand, the entrenchment of managers produces managerial opportunism and significant agency costs. On the other hand, many have argued that "entrenchment" can have positive effect by insulating managers and the board from opportunistic shareholder pressure, preserving management stability, and strengthening long-term commitment to value creation (Cremers, Litov, & Sepe, 2013). Given the mixed theoretical arguments and empirical evidence on the effect of managerial entrenchment, it may function differently in family- and state-controlled firms and explain their heterogeneous effects on CSR.

To investigate whether managerial entrenchment is the main channel that drives different effects between family- and state-control, I utilized the detailed data coverage of the ASSET4 sample on various governance provisions and self-constructed a "global entrenchment index" (global E-index) following the construction of the original US-based E-index by Bebchuk et al.

(2009). More specifically, the provisions in my global E-index include the presence of: (1) a poison pill; (2) a golden parachute; (3) a classified board, (4) other anti-takeover devices, and (5) supermajority requirements for both amending charters and amending bylaws.[31] The same indexing method has been used in Liang & Renneboog (2014) and Ferrell, Liang, & Renneboog (2014). In unreported regressions, I first regress the global E-index on a series of dummies representing different types of ultimate control (by family, state, bank, mutual funds, insurance companies, and industrial companies). Consistent with the descriptive statistics, the E-index is negatively associated with family- and state-control, but positively correlated with other types of control, indicating the managerial entrenchment is likely to be a feature that distinguishes family- and state-firms from other firms, and may potentially serve as a channel. In Panel A of Table 6, I show the results of regressing CSR ratings on the E-index, as well as its interaction with family-control dummy and with state-control dummy, along with other covariates. Overall, the E-index is positively associated with CSR. However, its effect on CSR is worsened in firms controlled by families, as the coefficient on the interaction term "Family control × E-index" is negative and statistically significant. The inclusion of the E-index also eats up the statistical significance of the family-control dummy. For state-controlled firms, the E-index does not seem to matter, as the interaction term "State control × E-index" is not statistically significant. These suggest that the negative effects of family control are partially explained by managerial entrenchment, but the effects of state control are not. As a comparison, I also do the similar tests by using Tobin's Q as the dependent variable, and the results are shown in Panel B of Table 6. Family control per se seems to be associated with higher Tobin's Q, but the E-index negatively moderates such association, as the coefficient on the interaction term "Family control × E-index" is negative and marginally significant. For state control, such moderating effect still does not exist, and state control per se does not seem to matter for Tobin's Q.

[Insert Table 6 about here]

Some may argue that the E-index is mainly relevant for dispersed ownership structure, thus cannot capture the effect of "entrenchment" or power concentration by families and states as controlling shareholders. However, the entrenchment effects in firms with controlling shareholders are already captured by the wedge between voting and cash flow right, a measure of

[31] Inevitably, there are missing values for some firms in some years from Datastream, and I treat these missing values as "zeros". In unreported regressions when I treat missing values as "missing", similar results are obtained.

large shareholders' power. Besides managerial entrenchment and large shareholders' entrenchment, what other factors may serve as potential channels that explain the heterogeneous effects of family-control and state-control on CSR? To answer this question, I further explore the roles of family members and politicians in management in the next section.

Management by Family Members

In most economies, large firms controlled by their founders financially outperform, while those controlled by biological heirs underperform, a stylized fact that has been well documented in the literature (See Bertrand and Schoar, 2006 for a comprehensive survey; also see Villaonga and Amit, 2006). This is usually related to the preference of family firms to limit the influence of outsiders. Some have argued that succession by inheritance is inefficient because top management positions go, not to the most capable, but, at best, to the most capable member of the controlling family (Mehrotra et al., 2013). In addition, nepotism based on blood kinship significantly limits the pool of potential talents to run the firm, thus hurts the competitiveness of family firms in the long run (e.g., Perez-Gonzalez, 2006). Such form of "crony capitalism" implies that talents are misallocated in a society, which has negative effects on economic growth (Murphy, Shleifer, and Vishny, 1991). Perez-Gonzalez (2006) empirically finds that firms that promote family CEOs significantly underperform after successions relative to firms that hire unrelated professional CEOs. In contrast, Mullins and Schoar (2014) argue that in firms where the founder or the family owners are more involved in the management and control, the CEO tends to run a more hierarchical management structure, but places more weight on protecting stakeholders such as workers.

Following these arguments and empirical findings, I relate family management to the context of stakeholder value, and test whether the negative association between family control and CSR rating is partially driven by family members serving in the corporate management. The results are shown in Table 7. I first conduct my tests on the subsample of only family-controlled firms, as in Columns 1-2 (for the overall CSR), 5-6 (for the environmental rating), and 9-10 (for the social rating). I then conduct the same tests on the whole sample, assuming that the CEO of a non-family firm is not a family member (Column 3-4, 7-8, 11-12). Interestingly, for the overall CSR rating in Columns 1-4, the coefficients on "Family CEO" are negative and statistically significant, which may indicate that within family-controlled firms, family management is further associated with significantly worse CSR performance. When I decompose family-CEO into founder-CEO and heir-CEO, and include founder or family member serving as the chair of the board, only the coefficients on "Heir CEO" are statistically significant (Columns 2 and 4). This may suggest that

the negative effect of family-CEO on family-firms' CSR mainly stems from "heirs". When I replace the dependent variable with firm environmental score (Columns 5-8) and social score (Columns 9-12), the coefficients on these family-CEO variables are not significant for environmental performance, but significant for social performance. This is consistent with the argument by Morck & Yeung (2004) that a high level of trust within family management is associated with a low level of trust in society at large, which is detrimental to social welfare. My results further suggest that such detrimental effects are largely manifested by corporate *social* engagement, rather than environmental engagement. Overall, the results are again consistent with the expropriation view rather than the "long-term management" view of family control.

[Insert Table 7 about Here]

Management by Politically-Connected CEOs

Similar to family-controlled firms, state-controlled firms may be managed by CEOs with political connections. A vast literature has documented that politically connected CEOs help carry out the state's political missions (e.g., Faccio, 2006; Bortolotti & Faccio, 2009). Therefore, if the state is willing to steer better CSR practices, it may more easily to do so through firms with CEOs that have political backgrounds. Following the literature, I define "Politically-connected CEO" (a dummy variable) as that the CEO worked in the government, political party committee or military, or is/was a member of the Congress. I then conduct similar tests to those for family management and report the results in Table 8: I first test within the subsample of state-controlled firms (Columns 1, 3 and 5), and then test on the whole sample (Columns 2, 4 and 6). Note that I manually collected political connection data for all firms in the whole sample—both state-controlled firms and non-state-controlled firms. As Table 8 shows, within state-controlled firms, politician management (the CEO has political background) is associated with higher CSR ratings. Similar results are found when I conduct the same tests on the whole sample (including both state-controlled and non-state-controlled firms) and include the variable "State control". These results further give support to the positive effect of state control on stakeholder value as advocated by the public interest theory, and may indicate that such effect is partially through appointing politically connected CEOs.

[Insert Table 8 about Here]

Other Potential Channels

So far I have conducted several tests exloring potential channels— including the self-constructed entrenchment index and CEO backgrounds— through which family control and state control can affect stakeholder value. Due to the cross-country nature of my sample, it is not feasible to investigate all potential channels in my empirical setting; instead, I have chosen a few governance mechanisms that have been extensively discussed in the traditional corporate governance literature and for which data are available. More specifically, I investigate the following governance mechanisms as potential candidates for "channels".

Veto Powers or Golden Shares. The strongest mechanism for the largest shareholder to exert control is to possess veto powers or golden shares. A golden share (usually accompanied with veto powers) is a nominal share which is able to outvote all other shares in certain specified circumstances. This variable mainly refers to whether the biggest owner (by voting power) hold the veto power or own golden shares. While golden shares are usually in the hands of the government, they are also widely held in other types of large shareholders (Bortolotti & Faccio, 2009). As shown in the descriptive statistics, families, banks, insurance companies, mutual funds, private equity, and other financial institutions all hold substantial amount of golden shares (or veto power).

Dual Class Shares. Dual class shares are the most common forms of voting rights in excess of cash flow rights across the world. In a typical dual-class company in the US, there is a publicly traded "inferior" class of stock with one vote per share and a non-publicly traded "superior" class of stock with ten votes per share. The superior class is usually owned mostly by the insiders and large shareholders of the firm and causes a significant wedge between their voting and cash-flow rights (Gompers, Ishii, and Metrick, 2010). In contrast, pyramid and cross-holding are not that prevalent across the world, especially in common law countries.

Multiple or Double Voting Rights Shares. Multiple or double voting rights shares are similar to dual class shares, and are shares issued by a company giving different voting rights based on an investment of equal value. For example, one type of stock gives one vote per unit of par value, a second type of stock gives 0.25, 2, 5 or 10 votes per unit of par value. They are primarily used to prevent outside capital from gradually taking over the issuing company.

Non-Voting Shares. These are shares with no voting rights that carry no special cash-flow rights (such as a preferential dividend) to compensate for the absence of voting rights. They also include non-voting shares issued with special cash-flow rights to compensate for the absence of voting rights, which may have no voting rights but have a preferential (higher or guaranteed) dividend.

Nonvoting shares are also often used to thwart hostile takeover attempts. Preferred stocks typically have nonvoting qualities.

Unlimited Authorized Capital or Blank Check. These refer to the situation when the board of directors has authority determining voting rights, dividends, and conversion without separate shareholder approval. While it can be used to enable a company to meet changing financial needs, its most important use is to implement poison pills or to prevent takeover by placing this stock with friendly investors. Because of this role, blank check preferred stock is a crucial part of a "delay" strategy (Gompers, Ishii, and Metricks, 2003).

Priority Shares or Transfer Limitations. Priority shares are similar to golden shares. These shares grant their holders specific powers of decision or veto rights in a company, irrespective of the proportion of their equity stake. The rights attributed to the holders of priority shares vary from company to company and can range from the entitlement to propose specific candidates to the board of directors, to the right to directly appoint board members, or to veto a decision taken at the general meeting.

To investigate which governance mechanisms may serve as potential channels that partially explain the previous findings, I create interaction terms separately between these variables and the family control dummy and the state control dummy. I then regress CSR (only the overall CSR rating for simplicity) on these interaction terms, together with their individual components and other control variables, similar to what I did with the entrenchment index. The results are shown in Table 9. Interestingly, throughout all specifications, only the interactions between "Classified board" and family- and state-control (Columns 13 and 14) are statistically significant. However, the coefficient on the interaction between classified board and family control is positive, while that for classified board and state control is negative, which potentially indicates that the existence of classified board structure moderates the effects of family control and state control on stakeholder value. Put differently, *de-classifying* the board amplifies the negative impact of family control and the positive impact of state control on stakeholder value. When both interaction terms "Governance × family control" and Governance × State control" (where "Governance" refers to the existence of a classified board structure) are included in the same regression (Column 15), their coefficients are still statistically significant. These findings echo the existing literature on the dual effects of the classified board structure: on one hand it insulates directors from market discipline, which diminishes director accountability and encourages self-serving behaviors by incumbents such as shirking, empire building, and private benefits extraction (Bebchuk & Cohen, 2005; Cohen & Wang, 2013). On the other hand, a classified board may serve as an instrument to preserve board

stability and strengthen long-term commitments by helpfully insulating the board from opportunistic shareholder and stakeholder pressures (Cremers, Litov, & Sepe, 2013). In the context of my study, the "long-term commitment" function of the classified board is exemplified in family-controlled firms, while the "self-serving" function is exemplified in state-controlled firms. I am cautious here in interpreting the results as indications of these governance mechanisms serving as intermediate channels. But to the least, my results suggest the relevance of classified board— in relation to other corporate governance mechanisms— to the significant correlations between family- and state-control and CSR performance.

[Insert Table 9 about here]

Other Robustness Checks and Alternative Explanations

One may argue that concentrated wealth in the hands of families and states is a proxy for poor institutions, lack of trust, and cultures. However, if time-persistent institutional factors drive the variations of CSR and the formation of family- and state-control simultaneously, they should have been captured by country fixed effects. Similarly, given that cultures, trusts, and social norms are highly time-invariant, the country fixed effects will already take them in account. Of course, regulatory environment can vary over time, and therefore I include regulatory quality and rule of laws as two additional control variables, and interact them with family-control and state-control dummies. Interestingly, none of the coefficients on the interaction terms are statistically significant, indicating that the regulation-contingent effects of concentrated wealth are not strong. Particularly, for the regression in which regulatory quality is included, the coefficients on both family- or state-control and regulatory quality are significant, but the coefficients on their interaction terms are not. These results do not seem to suggest a joint effect of ownership structure and country-level regulatory framework, neither do they suggest that family- and state-control are proxies for laws and regulations in the stakeholder context. Instead, ownership seems to be associated with stakeholder value independently. In addition, in some countries such as China, CSR is mandated by governments and government ownership is prevalent. I therefore drop Chinese firms from the sample and re-run all the regressions, but find similar results. To preserve space, the results from these additional robustness tests are not reported.

Cronqvist & Fahlenbrach (2009) bring forth two competing explanations regarding the relationship between large shareholder heterogeneity and corporate policies. One is an "influence" explanation, in the sense that large shareholders impact policies. The other is a "selection"

explanation, meaning that blockholders systematically select firms in which they invest major stakes based on a preference for certain policies (e.g., CSR). While their context is US firms in which large shareholders are mostly institutional investors, activists, pension funds, corporations, individuals, private equity, and mutual funds, my context is global firms with their controlling shareholder being either wealthy families and states, who do not really "select" firms, but rather create and then control them. This feature rules out the "selection" explanation, thus my results are consistent with the "influence" explanation that families and states influence CSR policies by their preference, monitoring, and expropriation.

Another alternative explanation is that family-controlled firms may be more financially constrained, as their control structures make them more isolated from the capital market, and therefore they are less able to spend on costly CSR projects. State-controlled firms, on the contrary, have abundant resources at discretion, and are more able to afford CSR expenditures. This argument is in line with the "doing good by doing well" hypothesis, and does not directly imply whether these firms care more about stakeholder value. However, this argument does not seem to be supported by the control variables in my tests such as dividend per share and leverage ratio, which are widely regarded as proxies for financial constraints. In fact, their coefficients are mostly positive, largely rule out this explanation. Using similar datasets, Ferrell, Liang, & Renneboog (2014) argue that the positive coefficients on dividend payout and leverage in CSR regressions indicate that better-governed firms also tend to score higher in CSR ratings, which further refutes the "financial constraints" argument.

A Quasi-Natural Experiment: Copenhagen Climate Summit

To further identify the causal effects of ownership concentration by wealthy families and states on corporate CSR performance, I use a quasi-natural experiment approach by exploring a potentially exogenous "shock". However, exogenous shocks to control transfer on a global scale were very rare, and even such control change existed (such as massive privatizations worldwide), they did not happen uniformly during my sample period. Therefore, I resort to a shock to worldwide CSR awareness and investigate whether family-controlled and state-controlled firms in my sample reacted differently.

The exogenous shock that I focus on is the Copenhagen Climate Change Summit held in Copenhagen in 2009. The major milestone of the Summit was the passage of the Copenhagen Agreement, which is a document that delegated at the 15th session of the Conference of Parties (COP 15) to the United Nations Framework Convention on Climate Change agreed to "take note

of" at the final plenary on 18 December 2009. The Accord was drafted by the United States and a coalition of the BASIC countries (China, India, South Africa, and Brazil), and was aimed to be the successor to the Kyoto Protocol, whose round ended in 2012. The Copenhagen Summit and the passage of the Copenhagen Accord were largely exogenous to the corporate environmental performance in the recent decade, because the Accord was mainly aimed to serve as a continuation of the Kyoto Protocol that naturally expired, thus was not a direct response to corporate environmental performance. Arguably, the Conference and the Accord had raised governmental and corporate awareness of the severity of climate change and other environmental problem, which shifted the demand for CSR by governments and corporations worldwide. I argue that the exogenous shock of the Copenhagen Summit moved firms out of equilibrium in a way that magnifies both the benefits and costs of family control and state control. Many people have criticized that the Copenhagen Accord is a failure because it is not legally binding. However, this "non-legally-binding" feature is actually an advantage of my empirical setting, as it enables me to test on corporations' voluntary engagement (rather than compliance to regulations) in environmental issues.

I conduct a Difference-in-Difference (DiD) test, with the treatment being family-control (or state-control), and the year 2010 dummy representing the "shock" of the Copenhagen Accord that moves global firms out of equilibrium. I use firm's overall environmental performance (the Environmental Pillar score from the ASSET4 database) as the dependent variable, as the Copenhagen Accord mainly concerns corporate responses to environmental issues, rather than other aspects of CSR such as human rights. In addition, I do not focus on a particular industry but rather analyze the whole sample, as climate change, or environmental concerns in general, are relevant to all industries, though more so to energy and manufacturing industries. Nevertheless, I control for industry fixed effects to take into account the heterogeneity across different industries. In addition, country- and year-fixed effects are also controlled for.

The results are shown in Table 10. The coefficients on "Family control × 2010" and "State control × 2010" are DiD estimators. As shown, the coefficient on "Family control × 2010" is negative but not statistically significant, while that on "State control × 2010" is positive and also statistically significant. Understandably, when a firm has already achieved certain CSR standards, it is not likely that such a positive shock would induce the firm to reduce its CSR performance, even if it is less socially responsible. However, a more socially responsible firm would react more positively to such a shock, and significantly upgrade its environmental performance. Therefore, the insignificance of the coefficient on the "Family control × 2010" variable and the positive and

significant coefficient on the "State control × 2010" variable confirm my earlier conjecture that state-controlled firms are more socially responsible, while family-controlled firms are not. Again, the results from this quasi-experiment further support my previous findings that state-control is associated with higher CSR, while family-control is not.

[Insert Table 10 about here]

Family- and State-Control, CSR, and Firm Value

Finally, I investigate whether the underperformance in CSR by family-controlled firms and the outperformance in CSR by state-controlled firms translate into firm value. To do so, I create interaction terms "Family control × CSR" and "State control × CSR", and regress the assets-based Tobin's Q (market-to-book ratio of assets) on these interaction terms and their individual components, together with other control variables and fixed effects as specified before. The results are shown in Table 11. The CSR score used in Columns (1)-(3) is the overall CSR rating, the environmental rating in Columns (4)-(6), and the social rating in Columns (7)-(9). In Columns 1, 4, and 7, both interaction terms "CSR × Family Control" and "CSR × State Control" are included in the same regression, whereas in other columns only one interaction term enters into the regression each time. Some interesting observations can be made. First, for all CSR ratings, the coefficients of "CSR × Family Control" are consistently negative and statistically significant at 10% level in two of the three CSR ratings (overall CSR and environmental rating), though insignificant when the social rating is used. Second, throughout all specifications, the coefficients of "CSR × State Control" are all positive but statistically insignificant. These results on interaction terms may imply that the negative effects of family control on stakeholder value (CSR) further translate into lower firm value (assets-based Q), while the positive effects of state control do not directly translate into higher firm value. Third, looking at the main effects of CSR, the coefficients on various CSR ratings throughout all specifications are positive and statistically significant. The economic significances are non-trivial: an increase of one standard deviation in the CSR rating on average leads to 6% increase in Q. Taken together, these results may be interpreted as that while stakeholder value (CSR) is positively related to firm value, such value connection also crucially depends on the ownership structure of the firm. In family-controlled firms, lower CSR translate into lower firm value, while in state-controlled firms, such connection does not exist.

[Insert Table 11 about Here]

Conclusion

Using a large panel date set of more than 4000 firms in 60 countries, I present robust evidence in this paper that systematic differences in CSR— which signifies corporate stakeholder value— are closely related to a firm's ownership structure, especially the presence of wealthy families and states as controlling shareholders. In particular, family control is associated with worse CSR performance, while state control is associated with better CSR performance. In contrast, I find little evidence that ownership concentration in the hands of families and states is significantly related to shareholder value as proxied by Tobin's Q. The negative association between family control and CSR is partially explained by managerial entrenchment and the expropriation of controlling families on other stakeholders, as well as the incentive problem of family members being in corporate management. In contrast, the positive association between state control and CSR is partially explained by the presence of politically-connected CEO and the "declassified" board structure. These findings are robust after the inclusion of various control variables and country, industry, and year fixed effects, different estimation methods, as well as in a global quasi-natural experiment setting.

Overall, these results challenge some empirical findings from a single-country setting on the role of concentrated wealth in driving economic welfare. In particular, while the financial economics literature generally focuses on the incentive and expropriation problems of large shareholders as a whole, my results show that it is actually the heterogeneity of owners that matters more for corporate policies such as CSR. In addition, while economics and management studies generally advocate the social responsibility of family-controlled firms (e.g., Dyer & Whetten, 2006), my findings cast doubts on this belief, in particular the "long-term management" view of family control. Bertrand and Schoar (2006: 75) describe such long-run strategy as "a focus on maximizing long-run returns and the desire to pursue investment opportunities that more myopic widely held firms would not". CSR as a future-oriented corporate strategy— caring about sustainability and reputation among stakeholders— is a natural ground for testing this long-term management hypothesis. Apparently, the negative association between CSR and family-control does not support this view, but rather give more credits to the expropriation view. Moreover, while the literature generally argues that SOEs were less efficient than private companies (see reviews in Megginson & Netter, 2001; Vickers & Yarrow, 1988), my results give some credits to the role of state control of corporations in promoting social welfare, at least in the global post-privatization era. In fact, nowadays, some of the countries that are classified as being highly state-owned by La Porta et al. (1999) are also among the richest and most prosperous economies in the world, such as Austria,

Norway, Singapore and Finland. These countries succeed through building a welfare state, and state control in corporations may play an important role in dealing with market externalities in their economies.

Taking the results in this paper at the face value, several theoretical and practical implications emerge. First, the findings in this paper shed lights on the nature of different types of ultimate owners and their welfare consequences. The conventional understanding on the role of large shareholders lies along two dimension: monitoring and expropriation, and studies mostly focus on their joint effects on financial performance and shareholder value. Besley & Ghatak (2001) argue that ownership (especially the types of the owner) matters significantly for public goods provision (stakeholder welfare), which is confirmed by my empirical findings. Second, my findings contribute to the debate on varieties of capitalism, especially the existence of "crony capitalism" or "patrimonial capitalism" across the world (Zingales, 2012). Capitalist economic activities require a more individualistic form of entrepreneurship and the absence of nepotism (Bertrand and Schoar, 2006). My analyses show that wealth concentration and inheritance by wealth families— the so-called crony or patrimonial form of capitalism— can significantly undermine the foundations of the stakeholder-orientation that is aimed at welfare-enhancement in the corporate sector. Such corporate crony capitalism is further related to lower shareholder value, which is believed to be an important building block of the capitalist system (Williamson, 1985). Third, this study adds to the debate on the role of state involvement in the economy to deal with market externalities and maximize social welfare. While the traditional economic view based on the notion of market efficiency suggests that governments should deal with market failures and externalities through regulations rather than through direct ownership and control in corporations. However, in reality, regulations may be inefficient and fail in economies without strong institutions and enforcement of legal rules to protect the interests of various stakeholders. State ownership, through strong influence in corporate decision making, may serve as a complementary and more effective mechanism to enhance public interests. Of course, corruption and political rent seeking may exist in state-controlled firms, and my results mainly speak of the net effects of state control taking into account both its benefits and its costs. None of my results and arguments are to deny the merits of privatization. As pointed out by Megginson et al. (2001), privatized firms are more economically efficient along many dimensions. Instead, my findings suggest that at least in the global post-privatization era, state ownership in corporations may function to preserve social welfare in key strategic areas that are related to environmental protection and social justice. Finally, my findings have strong implications on what contribute to firm value. Liang and Renneboog (2014) and Ferrell, Liang, & Renneboog (2014) find that greater stakeholder value, as measured by higher CSR ratings,

is strongly related to higher shareholder value. In other words, firm value may incorporate not only the shareholder value, but also the value of various stakeholders. In this paper, I further show that such stakeholder-shareholder value connection crucially depends on who ultimately control the firm. In family-controlled firms, lower stakeholder value translates into lower firm value, but such value translation does not seem to happen in state-controlled firms. Therefore, the relationship between concentrated ownership and stakeholder value is particularly important for reassessing what factors, under what condition, contribute to firm value maximization. Overall, despite the extensive focus on family firms and SOEs in the literature, the roles of wealthy families and the state in corporations and in society are still worth further investigation.

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	Dispersed ownership	**Concentrated ownership**
Shareholder value	Conflicts between manager and shareholders	Conflicts between controlling shareholders and minority shareholders
Stakeholder value	Conflicts between manager and stakeholders	Conflicts between controlling shareholders and other stakeholders

Figure 1. Two Tradeoffs of Modern Corporations

Table 1. Descriptive Statistics

	Obs.	Mean	Median	Std. Dev.	Min.	Max.
Overall CSR rating	28404	50.520	49.23	30.687	2.42	98.57
Environmental rating	29288	49.618	45.47	31.900	8.31	97.18
Social rating	29288	50.027	48.57	30.919	3.44	98.96
Family control	53472	0.062	0	0.241	0	1
State control	53472	0.044	0	0.204	0	1
Largest owner's cash flow rights	23797	22.03%	13.6%	19.58%	0%	100%
Largest owner's voting rights	20716	23.59%	14.3%	20.88%	0%	100%
Wedge 1 (voting – cash flow)	20573	1.17%	0%	7.25%	-89.84%	99.99%
Wedge 2 (voting / cash flow)	20562	4.04	1	170.79	0	10000
Tobin's Q (equity M/B), winsorized	46583	2.359	1.80	1.757	0.50	7.28
Tobin's Q (assets M/B), winsorized	46262	1.7456	1.335	1.172	0.668	7.598
Return on assets (ROA)	31084	0.052	0.0454	0.060	-0.0727	0.179
Earnings per share (EPS), winsorized	47464	16.226	1.56	36.599	0	145.84
Dividends per share (DPS), winsorized	47541	4.014	0.345	9.940	0	41
Firm size (total assets)	31133	3612965	6123	2.15×10^{8}	0	3.06×10^{10}
Firm age	23374	34.740	23	31.655	0	185
Leverage, winsorized	48159	0.364	0.355	0.245	0	.8347
GDP per capita	42066	36842.12	39503.31	14909.46	345.41	112028.5
Globalization index	40436	76.773	76.9	9.251	44.01	92.5
CapEx-to-Sales ratio, winsorized	34380	0.130	0.052	0.191	0.006	0.767
Sales growth rate, winsorized	46799	0.126	0.082	0.212	-0.191	0.698
Entrenchment index	53472	0.889	0	1.239	0	5
Family CEO	3239	0.395	0	0.489	0	1
Founder CEO	3232	0.204	0	0.403	0	1
Heir CEO	3227	0.184	0	0.388	0	1
Family chair	3182	0.568	0	0.495	0	1
Politician CEO	23270	0.186	0	0.389	0	1
Integrated strategy	29054	0.497	0	0.500	0	1
Dual-class shares	29054	0.082	0	0.274	0	1
Golden shares or veto power	24467	0.114	0	0.318	0	1
Unlimited authorized capital or blank check	24785	0.236	0	0.424	0	1
Non-voting shares	29054	0.025	0	0.156	0	1
Multiple or double voting shares	29054	0.051	0	0.220	0	1
Priority shares or transfer limitations	29054	0.046	0	0.210	0	1

Table 2. Ownership, Governance, and CSR in Firms with Different Types of Ultimate Owners

Ultimate owner type	Family	State	Bank	Industrial company	Institution	Insurance company	Mutual & pension	Private equity	Foundation	Manager	Others
Largest owner's cash flow rights	40.15%	47.93%	19.00%	15.81%	24.80%	15.61%	24.29%	22.05%	39.15%	36.27%	26.96%
Largest owner's voting rights	46.18%	47.53%	20.18%	16.57%	26.90%	16.17%	26.82%	29.45%	41.69%	38.61%	28.05%
Integrated strategy	0.452	0.620	0.483	0.511	0.466	0.410	0.397	0.331	0.695	0.439	0.484
Veto power or golden shares	0.324	0.463	0.063	0.041	0.135	0.067	0.141	0.145	0.281	0.091	0.177
Dual class shares	0.230	0.054	0.068	0.058	0.107	0.043	0.117	0.246	0.227	0.024	0..088
Classified board structure	0.032	0.010	0.030	0.035	0.021	0.018	0.013	0.054	0.045	0.128	0.030
Blank check	0.159	0.035	0.256	0.242	0.211	0.357	0.448	0.298	0.089	0	0.226
Multiple or double voting rights	0.198	0.015	0.040	0.036	0.038	0.037	0.055	0.277	0.095	0.268	0.047
Priority shares	0.048	0.055	0.040	0.037	0.060	0.056	0.094	0.038	0.112	0.098	0.058
Nonvoting shares	0.055	0.030	0.022	0.019	0.040	0.020	0.039	0.008	0.024	0	0.026
E-index	0.828	0.599	1.102	1.128	0.924	1.473	1.181	0.870	0.925	0.727	0.416
Wedge 1 (voting – cash flow)	5.87%	-0.16%	0.63%	0.57%	0.02%	2.38%	7.12%	1.31%	2.656	1.379	1.068
Wedge 2 (voting / cash flow)	39.07	0.995	1.030	1.092	1.222	1.023	1.112	1.589	1.264	1.057	1.085
Aggregate CSR rating	42.10	55.25	50.48	54.35	43.07	50.71	41.64	38.74	61.75	56.64	42.52
Environmental rating	42.91	57.91	44.77	54.20	42.72	39.39	35.51	37.16	62.67	70.41	43.68
Social rating	45.31	59.91	51.42	52.48	41.53	45.47	37.33	35.29	66.13	64.15	45.71
Market-to-book equity (winsor.)	2.614	2.133	1.812	2.341	1.731	2.186	2.538	2.280	2.460	2.596	2.242
Market-to-book assets (winsor.)	1.791	1.518	1.228	1.611	1.173	1.568	1.781	1.330	1.805	1.362	1.654
(Overall) observations	3322	2332	3597	23540	1991	1364	1936	231	429	55	14675

Table 3. Ownership Concentration and Shareholder Value

All regressions are estimated by random-effect GLS. The dependent variable is Tobin's Q (measured as market-to-book ratio of equity for Columns 1-6, and market-to-book ratio of assets for Columns 7-8), winsorized at 5% level except for Column 8. Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
DV = Winsorized q	*MTB equity*	*MTB equity*	*MTB equity*	*MTB equity*	*MTB equity*	*MTB equity*	*MTB assets*	*MTB assets (unwinsorized)*
Family control	0.147			0.167	0.283***	0.135	0.0577	0.0912
	(0.103)			(0.113)	(0.107)	(0.119)	(0.0559)	(0.0976)
State control	0.0843			0.0644	-0.328***	0.166	0.0557	-0.0050
	(0.106)			(0.118)	(0.0994)	(0.125)	(0.0586)	(0.0963)
Cash Flow rights		-0.0003	0.0008	-0.0010	0.0055	-0.0026	-0.0007	-0.0013
		(0.0044)	(0.0017)	(0.0044)	(0.0038)	(0.0048)	(0.0018)	(0.0062)
Cash-flow rights squared		0.00001		0.00002	-0.0001	0.00004	0.00002	0.0001
		(0.0001)		(0.0001)	(0.0001)	(0.0001)	(0.00002)	(0.0001)
Wedge (voting – CF rights)			-0.0011			-0.0015	-0.0011	-0.0017
			(0.0029)			(0.0031)	(0.0009)	(0.0023)
Log(Assets)	-0.115***	-0.261***	-0.283***	-0.261***		-0.323***	-0.246***	-0.365***
	(0.026)	(0.027)	(0.026)	(0.027)		(0.028)	(0.016)	(0.029)
CapEx/Sales	0.294***	-0.0005***	-0.0005***	-0.0005***		0.429***	0.166**	0.290**
	(0.101)	(0.0001)	(0.0001)	(0.0001)		(0.141)	(0.070)	(0.146)
Sales growth rate	0.176***	0.275***	0.218***	0.274***		0.233***	0.359***	0.569***
(winsorized)	(0.052)	(0.066)	(0.070)	(0.066)		(0.069)	(0.034)	(0.059)
Leverage	1.090***	0.069	0.102	0.068		1.441***	-0.495***	-0.620***
	(0.123)	(0.122)	(0.124)	(0.122)		(0.175)	(0.065)	(0.106)
Ln(GDP per capita)	0.936***	0.518***	0.480***	0.520***	0.364***	0.499***	0.044	0.066
	(0.100)	(0.160)	(0.177)	(0.160)	(0.129)	(0.175)	(0.0785)	(0.127)
Constant	-5.715***	-0.302	0.130	-0.342	-0.624	-0.208	2.984***	3.757***
	(1.077)	(1.671)	(1.884)	(1.675)	(1.308)	(1.853)	(0.831)	(1.332)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	26401	15456	13317	15456	21179	13317	13547	13547

Table 4. Ownership Concentration and Stakeholder Value

All regressions are estimated by random-effect GLS. The dependent variable is the CSR rating (overall CSR rating for columns 1, 2, & 7, environmental rating for columns 3, 4, & 8, and social rating for columns 5, 6, & 9) on a scale of 0 to 100. For columns 7-9, the interaction terms between family control and cash flow rights of the largest owner, and between state control and the cash flow rights of the largest owner are included. Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV= CSR ratings	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	Overall CSR	*Overall CSR*	*Environment*	*Environment*	*Social*	*Social*	*Overall CSR*	*Environment*	*Social*
Family control × CF rights							0.059	0.038	-0.008
							(0.055)	(0.050)	(0.055)
State control × CF rights							0.116	0.101	0.034
							(0.072)	(0.080)	(0.069)
Family control	-7.628***	-7.534***	-6.756***	-5.910***	-6.598***	-6.218***	-9.829***	-8.208***	-6.407**
	(1.694)	(1.656)	(1.673)	(1.647)	(1.783)	(1.671)	(2.578)	(2.376)	(2.633)
State control	4.717**	9.602***	4.240**	9.654***	4.685**	9.319***	-0.0933	-0.123	3.193
	(2.244)	(2.112)	(2.137)	(2.030)	(2.307)	(2.071)	(3.706)	(3.905)	(3.723)
Cash flow rights	-0.237***	-0.279***	-0.153**	-0.226***	-0.137**	-0.176***	-0.147***	-0.059**	-0.058*
	(0.059)	(0.058)	(0.062)	(0.058)	(0.064)	(0.059)	(0.029)	(0.028)	(0.031)
Cash-flow rights squared	0.0015**	0.0020***	0.0014*	0.0021***	0.0011	0.0014**			
	(0.0007)	(0.0007)	(0.0008)	(0.0007)	(0.0008)	(0.0007)			
Wedge (voting – CF rights)	-0.066**	-0.098***	-0.033	-0.058*	-0.045	-0.075**	-0.068**	-0.038	-0.053
	(0.033)	(0.033)	(0.033)	(0.032)	(0.032)	(0.032)	(0.034)	(0.032)	(0.034)
MTB Equity	0.397**	0.0983	0.298*	-0.0479	0.500***	0.228	0.422***	0.302**	0.509***
	(0.160)	(0.143)	(0.153)	(0.140)	(0.163)	(0.143)	(0.160)	(0.154)	(0.164)
ROA	14.77***		2.215*		2.596**		15.15***	2.351**	2.852**
	(4.142)		(1.183)		(1.281)		(4.237)	(1.194)	(1.323)
Earnings per share	0.0090	0.0330***	-0.0125	0.0173	-0.0178	0.0138	-0.0003**	-0.0003**	-0.0004***
(winsorized)	(0.0140)	(0.0117)	(0.0136)	(0.0111)	(0.0145)	(0.0121)	(0.0001)	(0.0001)	(0.0001)
Dividend per share	0.270***	0.352***	0.108	0.117	0.231***	0.241***	0.00250**	0.00193**	0.00238**
(winsorized)	(0.072)	(0.073)	(0.074)	(0.074)	(0.074)	(0.070)	(0.001)	(0.001)	(0.001)
Log(Assets)	7.659***		7.332***		7.221***		7.767***	7.352***	7.256***
	(0.398)		(0.371)		(0.387)		(0.400)	(0.372)	(0.390)

Table 4 (Cont). Ownership Concentration and Stakeholder Value

DV= CSR ratings	(1) *Overall CSR*	(2) *Overall CSR*	(3) *Environment*	(4) *Environment*	(5) *Social*	(6) *Social*	(7) *Overall CSR*	(8) *Environment*	(9) *Social*
Leverage	-0.999	-0.128**	0.170	0.049	0.324	0.118***	-1.049	0.166	0.303
	(0.714)	(0.060)	(0.433)	(0.060)	(0.433)	(0.0342)	(0.725)	(0.431)	(0.431)
Ln(GDP per capita)	0.182	3.392	-4.281	-0.191	0.687	3.691*	0.077	-4.288*	0.754
	(2.397)	(2.144)	(2.605)	(2.217)	(2.389)	(2.065)	(2.401)	(2.605)	(2.396)
Globalization Index	0.820***		-0.444		0.417		0.859***	-0.423	0.464*
	(0.283)		(0.288)		(0.258)		(0.285)	(0.287)	(0.261)
Constant	-94.52**	-2.341	56.68	33.47	-68.85**	-10.39	-98.63***	53.82	-74.77**
	(36.77)	(23.07)	(39.12)	(23.68)	(35.06)	(22.10)	(36.89)	(39.00)	(35.30)
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	13512	17273	13699	17562	13699	17562	13512	13699	13699

Table 5. Instrumental Variable Results

The table shows the results from two-stage least square estimations using instrumental variable (IVs) approach. For columns 1-6, the endogenous variables are state control, cash flow rights of the largest owner and its square, and wedge between voting and cash flow rights of the largest owner, and their IVs are country-level regulatory quality (RQ), political stability and absence of violence (PV), corruption control (CC), and government efficiency (GE) from World Bank, as well as the Stability index from Database of Political Institutions (DPI). For columns 7-12, the endogenous variables are family control and the cash flow rights of the largest owner (without its squared), and their IVs are the country-level collectivism index (IDV) and uncertainty avoidance index (UAI) from Hofstede's cultural dimensions, as well the World Value Survey on the importance of family in one's life (coded as a dummy variable which equals one if it is classified as high family value country and zero if classified as low family value country). The previous control variables are included in both stages but are not reported to preserve space. First-stage coefficients on other ownership and control variables (cash flow rights of the largest owner and its square, and wedge between voting and cash flow rights of the largest owner) are not reported to preserve space. The Cragg-Donald F-test statistics (weak instrument test) are reported for the first stage. The Sargan-Hansen over-identification test statistics and their P-values are reported. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

	Overall CSR rating		Environmental rating		Social rating		Overall CSR rating		Environmental rating		Social rating	
DV = CSR ratings	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
World bank RQ	-2.924***		-0.054***		-0.054***							
	(0.478)		(0.013)		(0.013)							
World bank GE	1.333***		-0.023*		-0.022*							
	(0.452)		(0.012)		(0.012)							
World bank PV	0.835***		0.080***		0.080***							
	(0.199)		(0.005)		(0.005)							
World bank CC	1.379***		0.011		0.011							
	(0.323)		(0.009)		(0.009)							
DPI stability	-0.00002		-0.001***		-0.001***							
	(0.008)		(0.0002)		(0.0002)							
Hofstede UAI							0.003***		0.002***		0.002***	
							(0.0002)		(0.0002)		(0.0002)	
Hofstede IDV							-0.0001		0.00001		0.0000	
							(0.0002)		(0.0002)		(0.0002)	
Family importance							0.022**		0.022**		0.022**	
							(0.009)		(0.009)		(0.009)	
State control		40.60**		79.26***		53.83***						
		(17.54)		(23.49)		(19.12)						
Family control								-76.93***		-28.84*		-76.44***
								(17.42)		(17.30)		(18.33)
Cash flow rights		0.659		0.063		0.498		-1.591***		-1.067***		-1.085***
		(0.491)		(0.635)		(0/514)		(0.152)		(0.129)		(0.143)
Cash-flow rights sq.		-0.010		0.006		0.001						
		(0.007)		(0.009)		(0.007)						
Wedge		-0.868*		2.594***		-0.234						
		(0.513)		(0.686)		(0.559)						
Other controls		Yes		Yes		Yes		Yes		Yes		Yes
N		13826		14006		14006		8451		8537		8537
Cragg-Donald F-stat	9.00		9.09		9.10		47.45		38.31		40.60	
Sargan-Hansen stat		1.301		1.048		4.048		0.268		26.046		3.704
P-value		0.2541		0.3059		0.0442		0.6045		0.0000		0.0543

Table 6. Managerial Entrenchment and Stakeholder Value

Panel A. Regressions of CSR

DV = CSR ratings	(1)	(2)	(3)	(4)	(5)	(6)
	Overall CSR	*Overall CSR*	*Environmental*	*Environmental*	*Social*	*Social*
Family control	-7.026***	-7.062***	-4.391**	-3.674*	-3.311	-4.038**
	(2.237)	(2.090)	(2.098)	(1.961)	(2.228)	(2.018)
State control	5.633**	10.23***	5.122*	9.254***	5.309*	9.779***
	(2.771)	(2.587)	(2.695)	(2.477)	(2.843)	(2.530)
Cash flow rights	-0.234***	-0.274***	-0.147**	-0.221***	-0.129**	-0.170***
	(0.059)	(0.058)	(0.062)	(0.057)	(0.063)	(0.059)
Cash-flow rights squared	0.0015**	0.0020***	0.0014*	0.0020***	0.0010	0.0014**
	(0.0007)	(0.0007)	(0.0008)	(0.0007)	(0.0008)	(0.0007)
Wedge (voting – CF rights)	-0.061*	-0.095***	-0.025	-0.052	-0.033	-0.067**
	(0.033)	(0.033)	(0.032)	(0.032)	(0.032)	(0.032)
Entrenchment index	1.188***	1.345***	0.882***	0.986***	1.438***	1.383***
	(0.271)	(0.235)	(0.303)	(0.261)	(0.273)	(0.237)
Family control × E-index	-0.234	-0.137	-1.383*	-1.262*	-1.895**	-1.183
	(0.848)	(0.785)	(0.796)	(0.748)	(0.772)	(0.740)
State control × E-index	-0.714	-0.456	-0.625	0.294	-0.400	-0.322
	(1.180)	(1.072)	(1.160)	(0.972)	(1.117)	(0.978)
MTB equity (winsorized)	0.402**	0.110	0.297*	-0.0418	0.498***	0.238*
	(0.160)	(0.143)	(0.153)	(0.140)	(0.163)	(0.143)
ROA	14.90***		2.268*		2.699**	
	(4.145)		(1.194)		(1.302)	
Earnings per share	0.008	0.032***	-0.013	0.017	-0.019	0.013
(winsorized)	(0.014)	(0.012)	(0.014)	(0.011)	(0.015)	(0.012)
Dividend per share	0.276***	0.356***	0.113	0.120	0.239***	0.246***
(winsorized)	(0.072)	(0.073)	(0.074)	(0.075)	(0.074)	(0.071)
Log(Assets)	7.628***	-0.130**	7.302***	0.048	7.166***	
	(0.398)	(0.061)	(0.371)	(0.059)	(0.385)	
Leverage	-1.009	-0.130**	0.169	0.048	0.316	0.117***
	(0.723)	(0.061)	(0.435)	(0.059)	(0.436)	(0.033)
Ln(GDP per capita)	0.321	3.339	-4.104	-0.236	0.927	3.663*
	(2.399)	(2.142)	(2.607)		(2.383)	(2.057)
Globalization Index	0.827***		-0.432		0.428*	
	(0.281)		(0.287)		(0.258)	
Constant	-97.29***	-2.903	53.13	32.98	-73.25**	-11.38
	(36.75)	(23.07)	(39.16)	(23.63)	(35.02)	(22.04)
N	13512	17273	13699	17562	13699	17562
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 6 (Continued). Managerial Entrenchment and Shareholder Value

Panel B. Regressions on Tobin's Q (Market-to-Book Ratio of Equity)

DV = winsorized Q	(1) *MTB Equity*	(2) *MTB Equity*	(3) *MTB Assets*	(4) *MTB Assets*
Family control	0.261**	0.248	0.165**	0.212*
	(0.119)	(0.167)	(0.0803)	(0.122)
State control	0.060	0.178	-0.050	0.080
	(0.112)	(0.174)	(0.069)	(0.100)
Cash flow rights		-0.0025		0.0012
		(0.0048)		(0.0033)
Cash-flow rights squared		0.00004		0.00002
		(0.00006)		(0.00004)
Wedge (voting – CF rights)		-0.0013		-0.0018
		(0.0031)		(0.0016)
Entrenchment index	0.050***	-0.009	0.006	0.003
	(0.012)	(0.018)	(0.007)	(0.010)
Family control × E-index	-0.100*	-0.069	-0.044	-0.078*
	(0.052)	(0.067)	(0.028)	(0.044)
State control × E-index	0.043	-0.007	0.019	-0.026
	(0.045)	(0.084)	(0.024)	(0.034)
Log(Assets)	-0.123***	-0.322***	-0.183***	-0.336***
	(0.027)	(0.028)	(0.024)	(0.024)
CapEx/Sales	0.299***	0.424***	0.115	0.241**
(winsorized)	(0.101)	(0.141)	(0.091)	(0.109)
Sales growth rate	0.186***	0.234***	0.525***	0.503***
(winsorized)	(0.052)	(0.069)	(0.039)	(0.050)
Leverage	1.094***	1.443***	-0.733***	-0.602***
	(0.123)	(0.175)	(0.071)	(0.093)
Ln(GDP per capita)	0.964***	0.502***	0.415***	0.0388
	(0.102)	(0.175)	(0.070)	(0.109)
Constant	-5.859***	-0.250	0.188	3.765***
	(1.094)	(1.859)	(0.701)	(1.156)
N	26401	13317	27183	13547
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes

All regressions are estimated by random-effect GLS. The dependent variables in Panel A are the CSR ratings (overall CSR rating for columns 1-2, environmental rating for columns 3-4, and social rating for columns 5-6) on a scale of 0 to 100. The dependent variables in Panel B are different measures of Tobin's Q (market-to-book ratio of equity for columns 1-2, and market-to-book ratio of assets for columns 3-4). Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). The Entrenchment index is on a global scale (not only for US firms) and is constructed by summing up the following dummy variables from Datastream: the presence of (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a classified board, and (5) other anti-takeover provisions, treating missing values as zeros. All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

Table 7. Family Management and Stakeholder Value

All regressions are estimated by random-effect GLS. The dependent variables are the CSR ratings (overall CSR rating for columns 1-4, environmental rating for columns 5-8, and social rating for columns 9-12) on a scale of 0 to 100. Family CEO is a dummy variable that equals 1 if the CEO of the firm is a member of the controlling family, and 0 otherwise. Founder CEO is a dummy variable that equals 1 if the CEO is the founder of his/her family-controlled firm, and 0 otherwise. Heir CEO is a dummy variable that equals 1 if the CEO is the heir of his/her family-controlled firm, and 0 otherwise. Family chair is a dummy variable that equals 1 if the chairperson of the board of directors is a member of the controlling family, and 0 otherwise. Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV = CSR ratings	(1) *Overall CSR*	(2) *Overall CSR*	(3) *Overall CSR*	(4) *Overall CSR*	(5) *Environ.*	(6) *Environ.*	(7) *Environ.*	(8) *Environ.*	(9) *Social*	(10) *Social*	(11) *Social*	(12) *Social*
Family CEO	-6.052*		-5.676*		1.256		2.187		-5.270*		-4.158*	
	(3.538)		(3.000)		(2.187)		(1.940)		(2.756)		(2.337)	
Founder CEO		-3.538		-3.029		2.563		3.324		-2.837		-2.427
		(3.799)		(3.246)		(2.275)		(2.041)		(3.125)		(2.857)
Heir CEO		-9.524*		-9.322**		-0.932		-0.317		-8.383**		-6.601**
		(5.017)		(4.337)		(3.693)		(3.346)		(3.671)		(3.196)
Family chair		0.734		1.562		1.469		1.967		1.977		1.972
		(2.513)		(2.368)		(2.662)		(2.449)		(2.617)		(2.454)
Family control			-6.016***	-6.767***			-7.770***	-8.571***			-5.500***	-6.453***
			(1.899)	(1.948)			(1.808)	(1.981)			(1.884)	(2.017)
Cash flow rights	-0.500***	-0.500***	-0.229***	-0.230***	-0.390***	-0.394***	-0.147**	-0.148**	-0.198	-0.202	-0.130**	-0.131**
	(0.167)	(0.167)	(0.059)	(0.059)	(0.149)	(0.150)	(0.062)	(0.062)	(0.187)	(0.188)	(0.064)	(0.064)
CF rights square	0.0050***	0.0050***	0.0015**	0.0015**	0.0043**	0.0043**	0.0014*	0.0014*	0.0018	0.0019	0.0010	0.0010
	(0.0018)	(0.0018)	(0.0007)	(0.0007)	(0.0017)	(0.0017)	(0.0008)	(0.0008)	(0.0020)	(0.0020)	(0.0008)	(0.0008)
Wedge	-0.022	-0.020	-0.062*	-0.062*	-0.011	-0.012	-0.033	-0.033	0.030	0.028	-0.042	-0.042
	(0.080)	(0.081)	(0.033)	(0.033)	(0.074)	(0.076)	(0.033)	(0.033)	(0.075)	(0.075)	(0.033)	(0.033)
MTB equity	0.754	0.746	0.400**	0.398**	0.653	0.649	0.300*	0.299*	0.248	0.241	0.502***	0.500***
(winsorized)	(0.478)	(0.470)	(0.160)	(0.160)	(0.487)	(0.484)	(0.153)	(0.153)	(0.464)	(0.455)	(0.164)	(0.163)
ROA	4.762	4.880	14.72***	14.73***	3.686	3.729	2.252*	2.245*	1.207	1.302	2.566**	2.569**
	(3.201)	(3.264)	(4.127)	(4.127)	(2.466)	(2.483)	(1.184)	(1.182)	(1.180)	(1.204)	(1.271)	(1.270)
EPS	-0.027	-0.030	0.009	0.008	-0.017	-0.018	-0.012	-0.012	-0.013	-0.016	-0.018	-0.018
(winsorized)	(0.039)	(0.039)	(0.014)	(0.014)	(0.046)	(0.046)	(0.014)	(0.014)	(0.041)	(0.040)	(0.015)	(0.015)

Table 7 (Cont). Family Management and Stakeholder Value

DV = CSR ratings	(1) *Overall CSR*	(2) *Overall CSR*	(3) *Overall CSR*	(4) *Overall CSR*	(5) *Environ.*	(6) *Environ.*	(7) *Environ.*	(8) *Environ.*	(9) *Social*	(10) *Social*	(11) *Social*	(12) *Social*
DPS	0.212	0.213	0.271***	0.271***	-0.262	-0.257	0.110	0.111	0.134	0.145	0.232***	0.233***
(winsorized)	(0.152)	(0.154)	(0.0724)	(0.0726)	(0.180)	(0.180)	(0.074)	(0.074)	(0.182)	(0.184)	(0.074)	(0.074)
Log(Assets)	8.494***	8.494***	7.713***	7.715***	7.446***	7.440***	7.373***	7.373***	6.164***	6.167***	7.273***	7.272***
	(1.177)	(1.180)	(0.395)	(0.395)	(1.185)	(1.173)	(0.368)	(0.368)	(1.437)	(1.421)	(0.385)	(0.385)
Leverage	-9.316*	-9.194*	-1.007	-1.000	-4.034	-3.925	0.158	0.162	-2.860	-2.696	0.315	0.320
	(5.147)	(5.067)	(0.715)	(0.715)	(3.937)	(3.878)	(0.434)	(0.434)	(4.071)	(4.001)	(0.433)	(0.433)
Ln(GDP pc)	-13.37	-12.99	0.0803	0.105	-10.93	-10.83	-4.346*	-4.339*	-8.101	-8.042	0.598	0.598
	(9.142)	(9.279)	(2.398)	(2.402)	(7.778)	(7.838)	(2.603)	(2.605)	(9.122)	(9.218)	(2.392)	(2.394)
Globalization	0.950	1.093	0.809***	0.817***	-0.259	-0.182	-0.446	-0.442	0.986	1.111	0.408	0.413
	(1.112)	(1.102)	(0.283)	(0.283)	(1.144)	(1.141)	(0.288)	(0.288)	(0.884)	(0.877)	(0.258)	(0.258)
Constant	34.70	18.68	-92.68**	-93.54**	121.9	114.1	57.39	57.03	-9.171	-20.82	-67.30*	-67.69*
	(139.1)	(139.6)	(36.76)	(36.79)	(123.3)	(124.1)	(39.10)	(39.12)	(129.2)	(130.5)	(35.10)	(35.13)
N	1205	1205	13512	13512	1230	1230	13699	13699	1230	1230	13699	13699
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 8. Politically-Connected CEOs and Stakeholder Value

All regressions are estimated by random-effect GLS. The dependent variables are the CSR ratings (overall CSR rating for columns 1-2, environmental rating for columns 3-4, and social rating for columns 5-6) on a scale of 0 to 100. Politically-connected CEO is a dummy variable that equals 1 if the CEO had work experience in government, political party committee, military, or is/was a member of the Congress, and 0 otherwise. Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV = CSR ratings	(1)	(2)	(3)	(4)	(5)	(6)
	Overall CSR	*Overall CSR*	*Environmental*	*Environmental*	*Social*	*Social*
Politically-connected CEO	8.067**	2.747***	9.712**	1.567	3.208	2.040*
	(3.899)	(1.036)	(4.606)	(1.209)	(3.900)	(1.096)
State control		3.262		3.168		4.437
		(2.999)		(2.817)		(3.056)
Cash flow rights	-0.637***	-0.267***	-0.278	-0.186**	-0.390	-0.153*
	(0.232)	(0.0743)	(0.267)	(0.0775)	(0.288)	(0.0792)
Cash-flow rights squared	0.004*	0.002*	0.001	0.001	0.002	0.001
	(0.002)	(0.001)	(0.003)	(0.001)	(0.00261)	(0.001)
Wedge (voting – CF rights)	-0.580***	-0.175***	-0.543***	-0.0982**	-0.319**	-0.144***
	(0.197)	(0.043)	(0.178)	(0.041)	(0.150)	(0.040)
MTB equity (winsorized)	2.136**	0.608***	1.417	0.513**	1.054	0.669***
	(1.084)	(0.218)	(1.362)	(0.206)	(1.508)	(0.227)
ROA	85.42**	13.38**	12.34	2.402*	58.82*	3.087*
	(37.24)	(5.648)	(46.72)	(1.345)	(34.00)	(1.792)
Earnings per share	0.009	-0.001	-0.039	0.0001	-0.043	-0.002
(winsorized)	(0.040)	(0.002)	(0.047)	(0.002)	(0.049)	(0.002)
Dividends per share	0.0152	0.0110	0.196	0.00565	0.174	0.00299
(winsorized)	(0.184)	(0.0101)	(0.215)	(0.00774)	(0.218)	(0.0127)
Log(Assets)	6.290***	8.173***	3.547*	8.050***	5.877**	7.724***
	(2.015)	(0.488)	(1.922)	(0.483)	(2.388)	(0.478)
Leverage	15.16	-1.471*	-1.365	0.398	16.50	0.124
	(12.70)	(0.887)	(11.82)	(0.725)	(16.00)	(0.748)
Ln(GDP per capita)	-1.573	0.600	3.080	-3.702	-0.234	-0.670
	(13.64)	(3.279)	(15.95)	(3.653)	(15.69)	(3.385)
Globalization index	4.833***	1.219***	1.498	-0.484	5.062***	0.360
	(1.187)	(0.391)	(1.430)	(0.407)	(1.680)	(0.382)
Constant	-421.7**	-137.4***	-134.1	46.50	-444.5*	-56.55
	(194.8)	(51.78)	(207.2)	(58.18)	(251.7)	(52.58)
N	281	8142	283	8240	283	8240
Year FE	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes

Table 9. Alternative Governance Channels

All regressions are estimated by random-effect GLS models. The dependent variable in all specification is the overall CSR rating. "Governance" is a dummy variable which refers to the existence of each governance mechanism in the corporate charter or bylaw, including black check, dual-class shares, veto power, prority shares, multiple voting shares, non-voting shares, and classified board. Other control variables include the previously specified ones: cash flow rights of the largest owner and its square term, the wedge between voting and cash flow rights of the largest owner, market-to-book ratio of equity (winsorized), ROA, earnings per share (winsorized), dividend per share (winsorized), the logarithm of total assets, the leverage ratio (debt-to-assets ratio), the logarithm of the country's GDP per capita, and the country's globalization index. All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV = Overall CSR rating	*Blank check*		*Dual-class shares*		*Veto power*		*Priority shares*	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Governance × Family control	-2.557		-2.373		-3.094		4.916	
Governance × State control		4.433		3.574		-2.185		3.146
Family control	-7.449***		-7.327***		-6.893***		-8.215***	
State control		6.531***		5.459**		6.798***		5.460**
Governance provision	-0.599	-0.767	-0.346	-1.124	3.537**	2.536	-0.780	-0.686
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country, industry, and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	11922	11922	13512	13512	12209	12209	13512	13512
R-squared	0.4436	0.4411	0.4372	0.4343	0.4460	0.4435	0.4362	0.4338

	Multiple voting shares		*Non-voting shares*		*Classified board*		*Classified board*
	(9)	(10)	(11)	(12)	(13)	(14)	(15)
Governance × Family control	0.0152		-2.488		9.324*		9.230*
Governance × State control		1.460		-8.434*		-5.776*	-5.090*
Family control	-7.735***		-7.824***		-8.399***		-8.082***
State control		5.499**		5.897***		5.920***	4.943**
Governance provision	-1.846	-2.238	5.488**	5.676**	-3.044*	-2.305	-2.967*
Other control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country, industry, and year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	13512	13512	13512	13512	13147	13147	13147
R-squared	0.4367	0.4341	0.4365	0.4335	0.4395	0.4366	0.4404

Table 10. Environmental Response by Family- and State-Controlled Firms After Copenhagen Climate Summit

The table shows results from Diff-in-Diff estimation. The dependent variable is the overall environmental rating from ASSET4. Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). Year 2010 is a dummy variable indicating the year. All regressions control for country, industry, and year fixed effects. Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV = Environmental rating	(1)	(2)	(3)
Family control × year 2010	-1.476	-1.587	
	(1.169)	(1.168)	
State control × year 2010	2.721*		2.817*
	(1.633)		(1.636)
Family control	-8.028***	-8.321***	
	(2.125)	(2.125)	
State control	8.653**		9.332***
	(3.487)		(3.488)
Cash flow rights	-0.249***	-0.241***	-0.269***
	(0.079)	(0.079)	(0.078)
Cash-flow rights squared	0.0024**	0.0024**	0.0024**
	(0.001)	(0.001)	(0.001)
Wedge (voting – CF rights)	-0.073**	-0.071**	-0.089**
	(0.036)	(0.035)	(0.036)
MTB equity (winsorized)	-0.019	-0.019	-0.028
	(0.175)	(0.175)	(0.175)
Dividend per share (winsorized)	0.594***	0.604***	0.592***
	(0.187)	(0.191)	(0.187)
Earnings per share (winsorized)	0.026*	0.026*	0.027*
	(0.015)	(0.015)	(0.015)
Log(age)	4.061***	4.032***	4.098***
	(0.664)	(0.665)	(0.666)
Ln(GDP per capita)	-0.924	-0.876	-0.892
	(3.228)	(3.231)	(3.228)
Globalization Index	-0.391	-0.372	-0.387
	(0.343)	(0.346)	(0.343)
Constant	60.13	58.05	59.35
	(48.98)	(49.30)	(48.99)
N	10795	10795	10795
Year FE	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes
Country FE	Yes	Yes	Yes

Table 11. Family- and State-Control, CSR, and Firm Value

All regressions are estimated by random-effect GLS models. The dependent variable in all specification is Tobin's Q, as measured by the market-to-book ratio of assets. CSR as the independent variable is the overall CSR rating in columns (1)-(3), the environmental rating in columns (4)-(6), and the social rating in columns (7)-(9). Family control and State control are dummy variables indicating the identity of the ultimate owner of the firm, while cash-flow rights is the continuous variable that measures the percentage ownership of the largest owner (by voting power). Standard errors clustered at the firm level are reported in bracket. ***, **, and * indicate significance at the 1%, 5%, and 10% level, respectively.

DV = Tobin's q	Overall CSR rating			Environmental rating			Social rating		
(MTB assets)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
CSR × family control	-0.005*	-0.005*		-0.006*	-0.006*		-0.002	-0.003	
	(0.002)	(0.002)		(0.003)	(0.003)		(0.003)	(0.003)	
CSR × state control	0.001		0.002	0.001		0.002	0.002		0.002
	(0.002)		(0.002)	(0.001)		(0.001)	(0.002)		(0.002)
CSR	0.004***	0.004***	0.003***	0.002***	0.002***	0.001**	0.003***	0.003***	0.003***
	(0.0007)	(0.0007)	(0.0007)	(0.0007)	(0.0006)	(0.0006)	(0.0007)	(0.0007)	(0.0007)
Family control	0.306*	0.312**		0.362*	0.366*		0.222	0.228	
	(0.159)	(0.157)		(0.195)	(0.194)		(0.151)	(0.151)	
State control	-0.094		-0.140	-0.088		-0.132	-0.110		-0.140
	(0.136)		(0.135)	(0.126)		(0.125)	(0.140)		(0.140)
CF rights	0.0002	0.0002	0.0005	-0.0011	-0.0010	-0.0007	-0.0008	-0.0008	-0.0005
	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
CF rights sq.	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)	(0.0001)
wedge	-0.001	-0.001	-0.001	-0.001	-0.001	-0.002	-0.002	-0.002	-0.001
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Country FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	13068	13068	13068	13535	13535	13535	13535	13535	13535

Appendix A. ASSET4 Data Description

ESG Dimension	*Description*
Environmental Performance	The environmental pillar measures a company's impact on living and non-living natural systems, including the air, land and water, as well as complete ecosystems. It reflects how well a company uses best management practices to avoid environmental risks and capitalize on environmental opportunities in order to generate long term shareholder value.
Emission reduction	Measures a company's management commitment and effectiveness towards reducing environmental emission in the production and operational processes. It reflects a company's capacity to reduce air emissions (greenhouse gases, F-gases, ozone-depleting substances, NOx and Sox, etc), waste, hazardous waste, water discharges, spills or its impacts on biodiversity and to partner with environmental organizations to reduce the environmental impact of the company in the local or broader community.
Product innovation	Measures a company's management commitment and effectiveness towards supporting the research and development of eco-efficient products or services. It reflects a company's capacity to reduce the environmental costs and burdens for its customers, and thereby creating new market opportunities through new environmental technologies and processes or eco-designed, dematerialized products with extended durability.
Resource reduction	Measures a company's management commitment and effectiveness towards achieving an efficient use of natural resources in the production process. It reflects a company's capacity to reduce the use of materials, energy or water, and to find more eco-efficient solutions by improving supply chain management.
Social Performance	The social pillar measures a company's capacity to generate trust and loyalty with its workforce, customers and society, through its use of best management practices. It is a reflection of the company's reputation and the health of its license to operate, which are key factors in determining its ability to generate long term shareholder value.
Customer/ Product responsibility	Measures a company's management commitment and effectiveness towards creating value-added products and services upholding the customer's security. It reflects a company's capacity to maintain its license to operate by producing quality goods and services integrating the customer's health and safety, and preserving its integrity and privacy also through accurate product information and labelling.
Society/ Community	Measures a company's management commitment and effectiveness towards maintaining the company's reputation within the general community (local, national and global). It reflects a company's capacity to maintain its license to operate by being a good citizen (donations of cash, goods or staff time, etc.), protecting public health (avoidance of industrial accidents, etc.) and respecting business ethics (avoiding bribery and corruption, etc.).
Society/ Human rights	Measures a company's management commitment and effectiveness towards respecting the fundamental human rights conventions. It reflects a company's capacity to maintain its license to operate by guaranteeing the freedom of association and excluding child, forced or compulsory labor.
Workforce/ Diversity and opportunity	Measures a company's management commitment and effectiveness towards maintaining diversity and equal opportunities in its workforce. It reflects a company's capacity to increase its workforce loyalty and productivity by promoting an effective life-work balance, a family-friendly environment and equal opportunities regardless of gender, age, ethnicity, religion or sexual orientation.
Workforce/ Employment quality	Measures a company's management commitment and effectiveness towards providing high-quality employment benefits and job conditions. It reflects a company's capacity to increase its workforce loyalty and productivity by distributing rewarding and fair employment benefits, and by focusing on long-term employment growth and stability by promoting from within, avoiding lay-offs and maintain relations with trade unions.

Workforce/ Health & safety	Measures a company's management commitment and effectiveness towards providing a healthy and safe workplace. It reflects a company's capacity to increase its workforce loyalty and productivity by integrating into its day-to-day operations a concern for the physical and mental health, well-being and stress level of all employees.
Workforce/ Training & development	Measures a company's management commitment and effectiveness towards providing training and development (education) for its workforce. It reflects a company's capacity to increase its intellectual capital, workforce loyalty, and productivity by developing the workforce's skills, competences, employability and careers in an entrepreneurial environment.
Corporate Governance Performance	The corporate governance pillar measures a company's systems and processes, which ensure that its board members and executives act in the best interests of its long term shareholders. It reflects a company's capacity, through its use of best management practices, to direct and control its rights and responsibilities through the creation of incentives, as well as checks and balances in order to generate long term shareholder value.
Board of directors/ Board functions	Measures a company's management commitment and effectiveness towards several best practice corporate governance principles related to board activities and functions. It reflects a company's capacity to have an effective board by setting up the essential board committees with allocated tasks and responsibilities.
Board of directors/ Board structure	Measures a company's management commitment and effectiveness towards several best practice corporate governance principles related to a well-balanced membership of the board. It reflects a company's capacity to ensure a critical exchange of ideas and an independent decision-making process through an experienced, diverse and independent board.
Board of directors/ Compensation policy	Measures a company's management commitment and effectives towards several best practice corporate governance principles related to competitive and proportionate management compensation. It reflects a company's capacity to attract and retain executives and board members with the necessary skills by linking their compensation to individual or company-wide financial or extra-financial targets.
Integration/ Vision and strategy	Measures a company's management commitment and effectiveness towards the creation of an overarching vision and strategy integrating financial and extra-financial aspects. It reflects a company's capacity to convincingly show and communicate that it integrates the economic (financial), social and environmental dimensions into its day-to-day decision-making processes.
Shareholder/ Shareholder rights	Measures a company's management commitment and effectiveness towards several best practice corporate governance principles related to a shareholder policy and equal treatment of shareholders. It reflects a company's capacity to be attractive to minority shareholders by ensuring them equal rights and privileges and by limiting the use of anti-takeover devices.
Economic Performance	The economic pillar measures a company's capacity to generate sustainable growth and a high return on investment through the efficient use of all its resources. It is reflection of a company's overall financial health and its ability to generate long term shareholder value through its use of best management practices.
Margins/ Performance	Measures a company's management commitment and effectiveness towards maintaining a stable cost base. It reflects a company's capacity to improve its margins by increasing its performance (production process innovations) or by maintaining a loyal and productive employee and supplier base.
Profitability/ Shareholder loyalty	Measures a company's management commitment and effectiveness towards generating a high return on investments. It reflects a company's capacity to maintain a loyal shareholder base by generating sustainable returns through a focused and transparent long-term communications strategy with its shareholders.
Revenue/ Client loyalty	Measures a company's management commitment and effectiveness towards generating sustainable and long-term revenue growth. It reflects a company's capacity to growth, while maintaining a loyal client base through a satisfaction programs and avoiding anti-competitive behaviors and price fixing.

Appendix B. Variable Definitions

Variable Name	Description	Source
Family control	A dummy variable that equals one if the ultimate owner is one or more named individuals or families, and zero otherwise. Ultimate owner is defined as the shareholder for whom the percentage of direct voting rights owned by this shareholder who is identified by following the path of uninterrupted control rights (at 25%) throughout the ownership pyramid.	Orbis
State control	A dummy variable that equals one if the ultimate owner is the state, the government or a public authority, and zero otherwise. Ultimate owner is defined as the shareholder for whom the percentage of direct voting rights owned by this shareholder who is identified by following the path of uninterrupted control rights (at 25%) throughout the ownership pyramid.	Orbis
Largest owner's cash flow rights	The percentage ownership of the single biggest owner (by voting power) of the company.	Datastream
Largest owner's voting rights	The percentage voting right of the single biggest owner (by voting power) of the company.	Datastream
Wedge (voting - cash flow rights)	The percentage difference between the cash flow rights and the voting rights of the largest owner (by voting power) of the company.	Datastream
Tobin's Q (equity M/B), winsorized	Calculated as the ratio of the market capitalization of equity to the book value of equity of the company, winsorized at 5% level.	Datastream
Tobin's Q (assets M/B), winsorized	Calculated as the ratio of the market value of total assets to the replacement value of total assets of the company (the sum of book value of equity and book value of liabilities), winsorized at 5% level	Datastream
Return on assets (ROA)	Calculated as the ratio of net income to the book value of total assets of the company.	Compustat
Earnings per share (EPS), winsorized	Latest annualized earnings per share that may reflect the last financial year or be derived from an aggregation of interim period earnings, winsorized at 5% level.	Datastream
Dividends per share (DPS), winsorized	Rolling 12 month dividend per share (adjusted). It is displayed gross, inclusive of local tax credits where applicable, winsorized at 5% level.	Datastream
Firm size	The logarithm of the company's total assets.	Compustat
Firm age	Years since the firm's incorporation year.	Datastream
Leverage, winsorized	The ratio of total liabilities to total assets of the company, winsorized at 5% level.	Datastream
GDP per capita	GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources.	World Bank
Globalization index	The KOF Index of Globalization measures the three main dimensions of globalization: (1) economic, (2) social, and (3) political. In addition to three indices measuring these dimensions, an overall index of globalization and sub-indices are also calculated referring to (1) actual economic flows, (2) economic restrictions, (3) data on information flows, (4) data on personal contact, and (5) data on cultural proximity. Data are available on a yearly basis over the period 1970-2010. A higher score indicates higher degree of globalization.	ETH Zurich

Appendix B (Continued). Variable Definitions

Variable Name	Description	Source
CapEx-to-Sales ratio, winsorized	The ratio of capital expenditure to annual sales revenue, winsorized at 5% level.	Datastream
Sales growth rate, winsorized	One-year annual growth rate of sales revenue of the firm, winsorized at 5% level.	Datastream
Entrenchment index	Following the original Entrenchment Index with US coverage by Bebchuk, Cohen, & Ferrell (2009), the Entrenchment Index 1 is constructed for firms from 64 countries across the world during the period 2002-2013, and is the sum of the five dummy variables from Datastream's ASSET4 sample based on the presence of: (1) a poison pill, (2) a golden parachute, (3) a supermajority requirement for amending bylaw and charter, (4) a staggered board (the terms of board members are uniform), and (5) other anti-takeover provisions. Missing values are treated as zeros.	Datastream (ASSET4)
Family CEO	A dummy variable that equals one if the CEO of the company is a family member of the controlling family of the company, and zero otherwise.	BoardEx, Forbes, Business Week,
Founder CEO	A dummy variable that equals one if the CEO of the company is the founder of the company that is controlled by his or her family, and zero otherwise.	BoardEx, Forbes, Business Week
Heir CEO	A dummy variable that equals one if the CEO of the company is a heir of the company that is controlled by his or her family, and zero otherwise.	BoardEx, Forbes, Business Week
Family chair	A dummy variable that equals one if the chairperson of the board of directors of the company is a family member of the controlling family of the company, and zero otherwise.	BoardEx, Forbes, Business Week
Politician CEO	A dummy variable that equals one if the CEO of the company worked in the government, political party committee, or military, or is/was a member of the Congress, and zero otherwise.	BoardEx
Dual-class shares	A dummy variable that equals one if the company has dual-class stocks (class A/B, registered/bearer shares), and zero otherwise.	Datastream (ASSET4)
Golden shares or veto power	A dummy variable that equals one if the largest owner (by voting power) of the company holds the veto power or owns golden shares, and zero otherwise.	Datastream (ASSET4)
Unlimited authorized capital or blank check	A dummy variable that equals one if the company has unlimited authorized capital or a blank check, and zero otherwise.	Datastream (ASSET4)
Non-voting shares	A dummy variable that equals one if the company has non-voting rights common (not preferred) shares, and zero otherwise.	Datastream (ASSET4)
Multiple or double voting shares	A dummy variable that equals one if the company has multiple (double) voting rights shares, and zero otherwise.	Datastream (ASSET4)
Priority shares or transfer limitations	A dummy variable that equals one if the company has shares with different rights like priority shares or transfer limitations, and zero otherwise.	Datastream (ASSET4)

Appendix C. ASSET4 Country Distribution

Country	Overall CSR rating	Environmental rating	Social rating	Firm-year obs.	Firm obs.	Country	Overall CSR rating	Environmental rating	Social rating	Firm-year obs.	Firm obs.
Abu Dhabi	19.65	38.32	25.68	12	1	Kuwait	18.92	24.30	36.60	48	4
Austria	43.29	38.13	38.77	4,020	335	Luxembourg	55.00	58.48	52.83	60	5
Australia	44.46	51.84	50.40	252	21	Malaysia	42.32	41.12	50.21	540	45
Belgium	53.16	54.88	49.63	336	28	Mexico	38.96	46.03	49.47	324	27
Brazil	55.02	55.19	67.72	1,008	84	Morocco	21.57	20.13	53.42	36	3
Canada	47.59	37.64	38.65	3,864	322	Netherlands	75.30	68.86	75.36	540	45
Channel Islands	52.05	49,82	53.02	24	2	New Zealand	49.47	45.42	42.40	144	12
Chile	33.41	43.66	45.61	252	21	Nigeria	7.18	10.89	19.71	12	1
China	25.59	33.38	32.78	984	82	Norway	56.90	55.26	58.87	300	25
Colombia	34.40	34.52	40.94	108	9	Oman	27.00	27.42	33.00	12	1
Cyprus	39.18	30.20	36.71	12	1	Peru	41.33	31.05	34.41	12	1
Czech Republic	48.56	48.72	60.01	48	4	Philippines	39.59	36.07	40.79	252	21
Denmark	48.45	56.43	52.69	324	27	Poland	33.22	33.62	42.06	312	26
Dubai	37.39	44.24	33.76	12	1	Portgual	67.52	66.20	73.95	144	12
Egypt	14.55	19.29	27.22	132	11	Quatar	10.77	12.87	24.64	24	2
Finland	72.26	73.25	66.86	324	27	Russian Federation	37.52	39.92	50.64	408	34
France	71.45	75.70	76.36	1,212	101	Saudi Arabia	19.22	32.12	25.65	72	6
Germany	58.25	67.07	67.16	1,068	89	Singapore	34.66	33.58	35.60	648	54
Greece	35.42	47.10	49.62	300	25	South Africa	66.17	56.74	73.06	1,092	91
Hong Kong	30.27	33.72	35.51	1,800	150	South Korea	47.12	62.00	56.77	1,212	101
Hungary	73.29	76.18	80.80	48	4	Spain	66.26	68.54	73.82	696	58
Iceland	29.02	20.45	36.06	36	3	Sri Lanka	51.25	51.09	66.59	12	1
India	47.16	51.60	57.93	960	80	Sweden	62.79	66.58	63.91	660	55
Indonesia	45.46	41.95	60.83	300	25	Switzerland	57.88	58.71	56.98	852	71
Ireland	43.04	42.65	39.33	216	18	Taiwan	29.02	44.74	36.30	1,536	128
Israel	38.44	42.65	39.33	168	14	Thailand	55.76	47.93	56.73	264	22
Italy	52.92	53.05	62.93	708	59	Turkey	44.33	48.36	52.90	288	24
Japan	38.18	61.62	45.47	5,196	433	United Kingdom	64.32	59.63	63.16	4,776	398
Jordan	52.16	60.71	62.99	12	1	United States	51.91	40.22	44.17	14,436	1203
Kazakhstan	34.92	15.74	27.17	12	1	Zimbabwe	11.75	38.42	35.57	12	1

Appendix D. ASSET4 Industry Coverage

TRBC Industry Group	Obs	Firms	Overall CSR	Environ.	Social	TRBC Industry Group	Obs	Firms	Overall CSR	Environ.	Social
Aerospace & Defense	492	41	64.75	60.83	60.10	Insurance	1,908	159	50.21	39.49	46.30
Automobiles & Auto Parts	1,164	97	59.63	76.02	61.64	Investment Banking & Investment Services	1,488	124	42.09	31.20	41.01
Banking Services	3,864	322	47.32	44.05	51.50	Leisure Products	276	23	41.86	42.66	44.97
Beverages	600	50	54.74	59.44	54.61	Machinery, Equipment & Components	2,484	207	55.52	65.01	53.94
Biotechnology & Medical Research	456	38	42.65	32.05	44.63	Media & Publishing	1,332	111	39.12	34.28	40.36
Chemicals	1,644	137	63.27	70.88	63.64	Metals & Mining	3,600	300	45.86	46.34	45.14
Coal	540	45	35.96	34.00	36.91	Multiline Utilities	348	29	67.07	64.21	60.84
Collective Investments	120	10	35.47	36.87	37.76	Natural Gas Utilities	276	23	55.15	54.83	55.42
Communications & Networking	300	25	61.18	59.47	54.66	Office Equipment	156	13	64.19	77.35	68.53
Computers, Phones & Household Electronic	708	59	59.65	67.69	61.01	Oil & Gas	2,748	229	51.30	47.67	48.15
Construction & Engineering	1,128	94	54.79	61.35	56.37	Oil & Gas Related Equipment and Services	1,092	91	47.00	35.36	43.82
Construction Materials	504	42	61.36	65.60	59.88	Other Specialty Retailers	1,308	109	46.50	36.46	43.58
Containers & Packaging	324	27	60.06	64.06	51.43	Paper & Forest Products	372	31	65.80	74.11	61.74
Diversified Retail	732	61	45.97	42.85	44.67	Passenger Transportation Services	720	60	47.42	51.39	48.67
Diversified Trading & Distributing	180	15	50.76	68.92	59.95	Personal & Household Products & Services	708	59	55.28	50.75	55.06
Electric Utilities & IPPs	1,560	130	60.93	64.96	61.02	Pharmaceuticals	948	79	54.15	56.49	58.08
Electronic Equipments & Parts	156	13	52.00	67.63	58.52	Professional & Commercial Services	1,560	130	54.39	44.76	52.42
Food & Drug Retailing	708	59	58.98	53.08	57.01	Real Estate Operations	1,656	138	30.36	38.84	29.56
Food & Tobacco	1,500	125	53.02	52.63	54.89	Renewable Energy	252	21	44.02	58.90	43.81
Freight & Logistics Services	744	62	46.94	47.55	48.46	Residential & Commercial REITs	1,260	105	34.45	34.85	26.47
Healthcare Equipment & Supplies	768	64	52.31	44.03	48.72	Semiconductors & Equipment	1,140	95	53.73	58.13	49.97
Healthcare Providers & Services	504	42	37.72	23.92	38.38	Software & IT Services	1,476	123	45.73	36.82	43.47
Holding Companies	72	6	26.91	27.68	26.22	Telecommunications Services	1,608	134	55.14	51.03	57.35
Homebuilding & Construction Supplies	684	57	56.44	63.69	52.95	Textiles & Apparel	528	44	50.41	52.09	57.23
Hotels & Entertainment Services	1,176	98	48.20	40.93	48.85	Transport Infrastructure	468	39	45.86	48.99	50.90
Household Goods	288	24	53.52	58.50	47.20	Uranium	96	8	34.74	28.63	33.12
Industrial Conglomerates	456	38	60.18	69.10	63.33	Water Utilities	132	11	64.69	57.97	67.31

Chapter 4. Speaking of Corporate Social Responsibility

Hao Liang, Christopher Marquis, Luc Renneboog, Sunny Li Sun [32]

ABSTRACT

We argue that the language spoken by corporate decision makers can significantly affect how they perceive future-oriented strategies, such as corporate social responsibility (CSR). Building on research in economics and linguistics that shows that obligatory future-time-reference (FTR) in a language reduces the psychological importance of the future, we theorize that companies with strong-FTR languages as their official/working language will have less of a future orientation and so perform worse in future-oriented activities such as corporate social responsibility (CSR). Examining thousands of global companies across 59 countries from 1999-2011, we find support for our theory. Furthermore, the negative association between FTR and CSR performance is weaker for firms with greater exposure to diverse global languages due to (a) being headquartered in countries with higher degree of globalization, (b) having a higher degree of internationalization, and (c) having a CEO with more international experience. These results are robust after controlling for country fixed effects and in a quasi-natural experiment setting, and similar language effect is found for other future-oriented organizational behaviors such as R&D expenditure. Contributions to the globalization of CSR and cognitive bases of strategy are discussed.

Keywords: Language, Future-Time-Reference, Categories, Culture, Corporate Social Responsibility, Sustainability

JEL Codes: G3, Z10, Z11, G28

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Introduction

Decades of research on corporate social responsibility (CSR) has shown it to vary significantly across countries and regions and that it is strongly influenced by the cultural and socio-economic environments in which firms operate (Carroll, 1979, 1991; Matten & Moon, 2008). Studies in this tradition typically relate CSR practices to a country's national business system (NBS) bundles, such as political institutions, type of market competition, and cultural orientation (Campbell, 2007; Ioannou & Serafeim, 2012). In particular, a growing body of research has considered CSR as a culturally embedded organizational behavior, and empirically tested cultural influences on CSR using the Hofstede cultural dimensions (Hofstede, 1980), as well as survey-based cultural data such as GLOBE's national cultural dimensions and the World Value Survey (e.g., Waldman et al., 2006a; Ringov & Zollo, 2007). While these analyses have shown important differences between cultures in CSR practices, they also yield inconclusive findings. That is, these cultural measures are usually subjective, and the very same cultural dimensions are frequently found to have opposite effects on CSR when using different samples and measurements of CSR, such that deeper relationships between culture and CSR remain obscured.[33]

In this paper, we introduce a new way to think about this underlying variation in global CSR practices, focusing on how differences in cross-national CSR commitment could partially stem from characteristics of the languages spoken across the globe, which are embedded in cultures and are relatively objective cultural measures. To do so, we draw on research in linguistics and economics, which has shown that a critical difference across languages that shapes future-oriented behavior (such as CSR) is whether or not they require speakers to grammatically mark future events. That is, does the language separate present and future into different conceptual categories of time, or are they combined? For some languages, such as English, grammatically separating the future and the present is mandatory, while for other languages, such as German, differentiating between the present and future is optional. Linguistics research has argued that by having the present and the future in different conceptual categories, obligatory future-time reference (FTR) in a language reduces the psychological importance of—and hence a person's concern for—the future, as it makes the future feel more distant (Dahl, 2000; Thieroff, 2000). Consistent with these arguments, Chen (2013), who even after controlling for

[33] For example, power distance—an important Hofstede cultural dimension—is found to have both negative (Ringov & Zollo, 2007; Ioannou & Serafeim, 2012) and positive (Ho, Wang, & Vitell, 2012) relations with CSR engagement.

other well-known cross-national explanatory factors such as legal origins, finds that strong-FTR speakers save less, retire with less wealth, smoke more, practice less safer sex, and are more obese. The conclusion is that being required to speak in a distinct way about future events leads speakers to take fewer future-oriented actions.

While research has shown that language use in general and, obligatory FTR in particular, shapes individuals' behaviors, it has not yet been established whether language patterns used by groups of corporate leaders are also related to corporate behaviors, especially the long-term decisions of firms. This is the question we intend to examine in this study. In developing our approach, we draw on research that has shown that different perceptual cognitive category systems of managers affect corporate decisions (e.g. Porac, Thomas, & Baden-Fuller, 1989; Kaplan 2011; Glynn & Navis, 2013). We specifically examine firm CSR practices as a future-oriented behavior because both scholars and practitioners have increasingly focused on CSR as indicating long-term orientation since to implement CSR, firms must incur short-term costs in order to benefit from the longer term future benefits associated with sustainability and deeper stakeholder engagement (e.g., Guiso, Sapienza, & Zingales, 2013; Hillman & Keim, 2001; *McKinsey Quarterly*, 2009). Our core research focus in this paper is: *How does the FTR of companies' working languages affect their adoption of, compliance to, and engagement in corporate social responsibility programs?*

We test these questions through a sample including the largest 1,500 global companies in the MSCI World Index and companies in other major global equity indices from 1999 to 2011, building a data panel of 91,373 firm-year observations across 59 countries. To investigate the effects of language on CSR, we adopt the same future-time criterion from Dahl (2000) and Chen (2013), which separates languages into two broad categories: those languages that require future events to be grammatically marked when making predictions (strong-FTR languages, like English), and those that do not (weak-FTR languages, like German). Our findings support our theorizing that companies with strong-FTR languages as their working language have less of a future orientation and so perform worse in corporate social responsibility (CSR). We rule out other alternative theories such as legal origins, institutions, regulations, and religions that may explain our FTR-CSR correlation by conducting within-country analysis on firms in Belgium and Switzerland, controlling for country fixed effects and religion, and using alternative measures of language structure. To better identify the organizational mechanisms underlying this relationship, in addition to our main analyses, we also conduct a number of extensions and robustness checks, including a quasi-experiment of how firm FTR change through CEO replacement affects CSR, and examining other long-term orientation indicators such as R&D

expenditures and environmental R&Ds. All results point to the fact that leader FTR shapes corporate long-term orientation, including CSR.

Our paper has two main contributions to the research literature. At a basic level, our study contributes to understanding international variation of management, governance, and CSR practices (e.g., Bartlett & Ghoshal, 1991; Bloom & Van Reenen, 2007; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 1998). While many have proposed CSR as an important management and governance practice influenced by institutions and cultures (e.g. Matten & Moon, 2008), little is known empirically about the mechanisms that can explain the national and international variation in CSR. As we show in this paper, language is an important underlying feature that shapes cultural values and the norms in a society. We build on prior research that developed the FTR language approach to distinguish our approach from prior research literatures that have focused on survey or other observational elements of different cultural systems (Hofstede, 1980; Kim & Kim, 2010). Secondly, our research contributes to the ways in which perceptual category systems focus the attention, and subsequently, economic behavior of corporations and corporate leaders. Here, we build on insights from literature on the behavioral bases of corporate strategy (Gavetti & Levinthal, 2000; Kaplan, 2011; Ocasio, 2011) and specifically, on the effects of cognitive categories on corporate decisions (Porac et al, 1999). By showing that a historically determined factor—spoken language—fundamentally shapes the cognitive categories of global decisions makers, we bridge an acknowledged gap between assessing leaders' cognitive differences and showing that they have a causal effect on organizational outcomes (Kaplan, 2011). Our broader conclusion is that examining how and why language affects organizational behavior is essential to understanding differences in global organizational behaviors.

Theory and Hypothesis

The global CSR literature suggests that the social responsibilities of corporations reflect the historically determined institutions (both formal and informal) that shape durable and embedded national business systems (Carroll, 1979, 1991; Matten & Moon, 2008). A common denominator across these studies is that informal institutions such as national cultures have an important effect on organizations' CSR practices. This is not surprising, as cultures are persistent and uniformly affect different aspects of organizational behavior (e.g., adoption, engagement, and compliance) (Hofstede & Hofstede, 2005), compared with more context-specific regulations and rules (Whitley, 1999). These empirical studies on cultural dimensions rely primarily on the renowned Hofstede cultural dimensions:

power distance, individualism, masculinity vs. femininity, uncertainty avoidance, and pragmatism (Hofstede, 1980; Hofstede & Hofstede, 2005), as well as on the survey-based GLOBE data (Waldman et al., 2006a) and World Value Survey (Parboteeah, Addae, & Cullen, 2012) all which have similar cultural dimensions. Yet the findings in this literature are inconclusive.[34] Therefore, while both the theoretical and empirical research literatures on CSR has shown in general that CSR is a culturally-driven activity, the mixed empirical evidence makes it challenging to identify the underlying cognitive process and behavioral tendencies that affect cross-organizational and cross-national CSR variation.

Theoretically, the inconclusive findings in the literature likely reflect the obscurity of the underlying mechanisms by which national cultural variation affects CSR (Matten & Moon 2008). Empirically, given the durable nature of culture, the conflicting results are likely to be driven by either omitted variable biases or the inappropriateness of survey- and observation-based culture proxies, rather than by cultural change between sample periods (Straub, Loch, Evaristo, Karahanna & Srite, 2002). More importantly, the cultural dimensions investigated in the literature rarely touch on CSR as a future-oriented concept, despite the fact that CSR practice is widely perceived by executives, investors, and regulators worldwide as crucial to corporate sustainability, and reflect the extent to which companies have a long-term orientation (*McKinsey Quarterly*, 2009).

Future Orientation of Languages

Research in linguistics, cognitive psychology and economics has shown that one of the most important (and much less subjective to judge) factors that shape cultural differences around the world is the characteristics of the spoken language. This research shows that languages do not merely express thoughts that are rooted in culture; the structure of languages also shapes the very thoughts that people wish to express. In the linguistics literature, linguistic relativity (popularly known as the Sapir–Whorf hypothesis [Whorf, 1956]) argues that the structure of a language affects the ways in which its respective speakers conceptualize their world, i.e. their worldview, or otherwise influences their cognitive processes. A recent wave of psychological and cognitive science research shows that

[34] For example, regarding Hofstede's power distance dimension, Waldman et al. (2006a), Ringov & Zollo (2007), and Ioannou & Serafeim (2012) theorize and find a negative relationship with CSR, which they attribute to business leaders' use of power for the pursuit of personal benefit, whereas Ho, Wang, & Vitell (2012) find a positive relationship, which they attribute to societies' unlikeliness to tolerate questionable environment-related business practice due to already strict environmental regulations. For individualism, while Ioannou & Serafeim (2012) find a positive relationship, Waldman et al. (2006), Ho et al. (2012) and Parboteeach et al. (2012) find a negative relationship, and Ringov & Zollo (2007) find no significant relationship. For masculinity, a positive relation is found in Ho et al. (2012) but the opposite is found in Ringov & Zollo (2007). Finally, uncertainty avoidance is found to be a positive predictor of CSR in Ho et al. (2012) but a negative one in Parboteeah et al. (2012).

language not only profoundly influences how people perceive the world, but also their implicit preferences (e.g., Ogunnaike, Dunham, & Banaji, 2010; Fausey, Long, Inamori, & Boroditsky, 2010; Boroditsky, 2011). For example, studies have shown that people find it easier to recognize and remember shades of colors for which their spoken language has a specific name (D'Andrade, 1995) and that people's recognition memory was better for the focal colors of their own language than for those of English (Roberson & Hanley, 2010).

One key feature of languages is that they differ in when they require speakers to specify the timing of events, or when timing can be left unsaid (Dahl, 2000; Thieroff, 2000). Dahl (2000) develops a criterion to distinguish between languages that are considered "futureless" and those which are not. "Futureless" languages are defined as those which do not require "the obligatory use [of grammaticalized future-time reference] in (main clause) prediction-based contexts"[35] As noted, Chen (2013) empirically showed that there is a strong correlation between weak-FTR languages and future-oriented economic behavior, and the effect of language is not attenuated when controlling for cultural and institutional traits. He argues that this is due to the fact that weak-FTR speakers perceive the future as closer.

To illustrate, the *World Atlas of Language Structures* gives an example of the distinction among several European languages in describing the weather for the future:

German:	*Morgen*		*ist*	*es*	*kalt*
	Tomorrow		is.PRS	it	cold
Finnish:	*Huomenna*		*on*	*kylmää*	
	Tomorrow		is.PRS		cold
French:	*Il*	*fera*	*froid*		*demain*
	It	do.FUT	cold		tomorrow
English:	'It will be cold tomorrow'				

As shown in the above example, English and French mandatorily require speakers to put "will" or a future tense ("fera" in French) in the sentence describing tomorrow's situation, while German

[35] As mentioned in Chen (2013), a detailed analysis of the difference in obligatory FTR between English and German can be found in Copley (2009). According to Copley (2009), "futurates"—sentences about future events with no FTR—can only be used in English to convey information about planned/ scheduled/ habitual events. This restriction is not present in German, and futurates are common in German speech and writing. In addition, Thieroff (2000) documents what Dahl (2000) calls a "futureless area" in Northern and Central Europe, including most Finno-Ugric and all Germanic languages except English.

and Finnish do not. Grammatically, saying "Tomorrow is cold" is the same as "Today is cold" in German and Finnish. This grammatical difference, as argued by Chen (2013), makes English and French speakers less future-oriented in their preference and behavior relative to German and Finnish speakers.

Other research on economic and management decision-making presents similar arguments on how different perceptions of the present and future affect individual and firm behavior. For example, one fundamental principle of economics is that money has a time value, and people usually apply a "discount factor" when they consider future value at present. That is, when people consider the future differently from the present, they tend to "discount" the importance of future in their utility function: one dollar tomorrow is worth of less than one dollar today (Fisher, 1930). In addition, the literature on "mental accounting" and "myopic loss aversion" also suggest that people tend to psychologically separate portfolios into different mental accounts (similar to cognitive categories) and individual behavior tends to be myopic when they focus on the "present" account while neglect the "future" account when future and the present are separated (Benartzi & Thaler, 1995). These concepts are closely related to corporate and strategic myopia theories advocated by management scholars (e.g., Hambrick & Mason, 1984; Laverty, 1996), who argue that temporal myopia by managers can lead to corporate short-termism, and neglect of longer-term strategy and initiatives. In a recent work, Chen, Cronqvist, Ni, & Zhang (2015) empirically find weak-FTR language firms perceive adverse credit market events as more imminent and have higher levels of precautionary cash holdings. Overall, all these linguistic, cognitive, economic, and management theories suggest that grammatically separating the future from the present induces speakers to be less future-oriented, as opposed to the alternative, that such separation makes the future more salient and thus associated with being more future-oriented.

Finally, this notion that language can influence the development of individual future orientation has also been demonstrated by research in cognitive science (Haith, Benson, Roberts, & Pennington, 1995). For example, language has been shown to play a crucial role in communicating and representing the future relative to the present and the past, especially during one's childhood (Bates, Elman, & Li, 1995). More recently, research in neuro-imaging and psychology has also examined how people perceive the future differently under different circumstances. This research shows that on average future values decline as a hyperbolic function from the present (e.g.; Frederick et al., 2002; Glimcher et al., 2007; Glimbher, 2009; Pine et al., 2009; Monterosso & Luo, 2010). Still, to our best knowledge, there is no neuro-linguistic research that relates linguistic structure (and for

our case, specifically, differences in the use of the future tense across languages) to intertemporal discounting.[36]

CSR as a Future-Oriented Corporate Behavior

The literature on temporal myopia by corporate leaders has suggested that corporate short-termism leads companies to eschew long-term value creation through CSR (e.g., Swanson, 2014). And significant prior research has also shown that CSR is an effective strategy to engage non-financial stakeholders over the long term (e.g. Hillman and Keim, 2001). Therefore, in this study we examine corporate CSR performance as an indicator of future-oriented corporate behavior. This is also supported by a recent McKinsey Global Survey, documenting that CSR practice is widely perceived by executives, investors, and regulators worldwide as crucial to long-term sustainability, as it helps mitigate corporate crises, build reputation, and maintain harmonious relationships with the community and environment (*McKinsey Quarterly*, 2009). Furthermore, empirically, several studies have found a strong link between CSR and corporate long-term performance and resistance to long-run shocks, other than the short-term profits (e.g., Deng, Kang, & Low, 2013; Albuquerque, Durnev, and Koskinen, 2013). As shown later in our empirical section, various measures of CSR are strongly correlated with several long-term oriented corporate actions, such as R&D expenditures. Therefore, if we accept that culture is an important determinant of CSR, the cultural dimensions that fundamentally drive CSR should be closely related to the future-orientation of organizational decision making.

Linking Future Time Reference and CSR

While the empirical evidence of the effects of language mostly focuses on individuals' future-oriented behaviors, there are good reasons to believe such language effects can also be manifested in corporate behaviors, especially those related to long-run decisions such as CSR. Corporate decisions

[36] The fMRI analysis by Peters and Büchel (2010) yields some interesting insights which are useful for our interpretation of intertemporal discounting and linguistic references to the future. They argue and find that labelling of the future by 'episodic tags'—temporally specific, short descriptions of events that will take place in the near future such as references to e.g. a birthday of a friend, a planned city trip, etc.—reduces the discount rates and brings the future closer. Thus, in languages where the future is more clearly demarcated, we would expect such "episodic tags" to be more numerous and stronger such that there is less strong discounting. Therefore, it may very well be the case that language cues about the future (in our case, how language grammatically expresses the future) are influencing how people regard the future and act upon it. Peters and Büchel (2010) do not explicitly test the grammatical use of the future (across languages) on the intertemporal discounting and hence cannot not serve as a solid conceptual foundation of our paper. Still, the study shows that adding temporal language tags related to the near future modulates discounting per se: "rewards paired with tags appear closer in time, thereby increasing the subjective value [of future rewards]" (p.144).

are made by leaders, and are hence influenced by leaders' cognitive processes (Hambrick & Mason, 1984). The literature on leader cognition has shown that leaders' conceptual categories, which are part of broader classification systems that vary by culture and spoken language, affect the strategic choices and actions of their firms and industries (e.g. Porac et al, 1995; Kaplan, 2011). Prior research has shown a number of critical processes by which the cognitive categories of leaders, such as the extent to which future and present are joined (Kaplan & Orlikowski, 2013), affect strategic outcomes (Kaplan, 2011). An important characteristic is category sharpness, and as Glynn and Navis summarize (2013: 1126), "when categorical classifications and boundaries are unclear or in flux (as in emerging markets or industries)," the perceiver (decision maker) has few, if any, benchmarks against which to sort, classify and assign meaning, which affects sense-making and action. Category salience is another important process. The more salient the categories, the greater the extent to which actors identify with them, and, by implication, the extent to which they affect behavior (Choi et al., 1997; Van Dick et al., 2005). More generally, research has also shown that categories are part of broader classification systems that vary by culture (Glynn & Navis, 2013). Thus, a conclusion that can be drawn from this research is that variation in conceptual categories along the dimensions of sharpness and salience affects leader perceptions and accordingly, organizational behaviors and strategies.

Conceptual categories as part of broader classification systems embedded in culture reflect how certain values, such as future-orientation, are coded in leaders' cognitions and affect their decision making. Language as an important cultural vehicle plays a prominent role in categorizing and coding such values through its grammatical classification of FTR. This is in line with the Sapir-Whorf hypothesis that language shapes people's cognition and behavior. Therefore, it follows that for speakers of weak FTR languages, the categorical boundary between present and future is not as sharp and salient, and so it is less likely they would see the future as a separate category and consequently, they would feel more pressure from the future and their behavior would be more future-oriented. In contrast, the sharper and more salient categorical boundary between present and future in strong FTR languages isolate speakers from worrying about the future in their current thinking, thus focusing their behavior more on the present. Put in the language of economics, speakers (including corporate decision makers) of strong FTR languages are more likely to apply a discount factor to future events, which makes the future less important today. This is consistent with the argument of Chen (2013: 695) that "speaking about future events as if they were happening now (in the present tense), would lead weak-FTR speakers to perceive future events as less distant".

Based on these arguments, we hypothesize that variation in cognition shaped by the linguistic background of corporate decision-makers induces different degrees of future-orientation between those speaking strong versus weak FTR languages, creating variation in firms' propensity to act socially responsibly and sustainably. This is the baseline hypothesis; even controlling for cultural and institutional variables, we predict a negative association between strong-FTR languages as the official working language of the firm and corporate CSR performance.

H1: Companies in regions with strong future-time reference (FTR) languages as the official working language have lower CSR performance.

Internationalization and Effects of Language

If language exposure and use shape decision makers' cognitive categories and thus where they focus their attention, then presumably greater exposure to and use of different languages by the focal firm will lessen the direct effect of FTR on firm CSR. Prior research has shown that perceptual categories are flexible and boundaries of what is in and out of the categories can change over time and contexts (Porac et al., 1995) and that situational factors significantly shape where leaders place their cognitive attention (Ocasio, 1997). In addition, the interaction between various factors (such as cognitive categories and language environments) that affect CSR can happen at multiple levels: national, organizational, and individual (Aguilera et al., 2007). Thus, at a theoretical level, we believe that the relationship described above may vary depending on how a variety of multilevel features related to firm internationalization foster a more multi-lingual environment and communications in the focal organization. We anticipate that the greater internationalization of firms' headquarters country, the firms' business, and their leaders will moderate the effect of FTR on firms' future orientation. Specifically, we explore several country-level, firm-level, and CEO-level factors that can weaken such negative effects of language FTR on CSR performance.

Globalization of Firm's Headquarters Country. Globalization has a significant impact on corporate CSR performance. Globalization and the proliferation of cross-border trade and investment by multinational enterprises (MNEs) result in an increasing awareness of CSR practices relating to areas such as human rights, environmental protection, health and safety, and anti-corruption (Gokulsing, 2011). Access to more information through global and multilingual media enables the public to be more informed and to more easily monitor corporate activities. In addition, in more globalized countries, as firms are under higher pressure from international regulations and the spillover of stakeholder protection standards—such as the compacts, declarations, guidelines, and principles

that outline norms for acceptable corporate conduct and are issued by the UN, OECD, ILO, etc.—their behaviors tend to be more socially-oriented to conform to these standards.

Globalization is also closely related to the effects of language. The cross-country and interregional flows and networks of activity, interaction, and communications have blurred the boundaries between distinct languages. As with globalization, languages have evolved to adopt each other's grammars and ways of expression, and as a result, speakers of different languages have increasingly adapted to each other's way of thinking. For example, English has adopted words and phrases from many other languages, even in recent years, such as "yacht" from Dutch, "hamburger" and "strafe" from German, and "ski" from Norwegian. Given this, it is reasonable to believe that a higher level of country globalization facilitates the exchange of words and ideas, including those related to CSR. Companies headquartered in a more globalized environment are more exposed to a multilingual environment with business partners in different countries. Such multilingual environment makes a manager more flexible to change the perceptual categories and attention on CSR than the single language environment does. We focus on the headquarters country because that is typically the location of the firms' top leaders (Cantwell, 2009). Therefore, the negative effect of language FTR will be moderated by the country-level international exposure of the firms' headquarters location.

H2: The negative association between CSR performance and strong FTR is weaker for firms headquartered in regions with a higher degree of globalization.

Firm-level Internationalization. CSR practice is not only affected by globalization at the country-level, but also by MNEs' global exposure. A large literature on CSR and FDI points out that FDI as a driver of the spillover of CSR standards and practice has resulted further empowerment of MNEs (e.g., Hasan, 2011). On the one hand, MNEs are in a powerful position to promote change in critical environmental and social issues such as pollution and human rights violations, especially in developing counties. On the other hand, MNEs have become increasingly pressured by external groups such as NGOs to operate with a higher level of social responsibility. For instance, Chapple and Moon (2005) show that companies serving customers in multiple countries engage in more CSR than those just serving their home country, presumably because of the need to satisfy more diverse stakeholders. Thus, the extent to which a firm is dependent on foreign consumer markets and productive resources would likely positively affect its CSR.

Firms' internationalization is highly related to language effects as well. MNEs are typically multilingual communities in which the parent's and the subsidiary's functional languages are

concurrently used and recursively linked through intra-corporate communication networks. The MNE's language system is in accordance with organizational form, strategic choice, and expatriate employment in the context of evolving environmental and organizational realities (Luo & Shenkar, 2006). Furthermore, MNEs usually operate with business partners around the world and are exposed to both strong- and weak-FTR languages. Multilingual communication, whether between headquarters and subsidiaries or among subsidiaries across different countries, will affect many MNEs activities, such as knowledge transfer, merger integration, global outsourcing, and global team cooperation (Zaheer, Schomaker, & Nachum, 2012). All these will reduce the importance of the use of a single language and weaken the negative effects of language FTR on CSR.[37] Therefore,

H3: The negative association between CSR performance and strong FTR is weaker in companies with a higher degree of internationalization.

Firm Leaders' International Experience. As Ocasio (1997: 197) notes, "The most critical players in attention regulation are typically the CEO and the top management group," and a long line of research has shown that executives' backgrounds drive the decisions they make, including CSR (Hambrick & Mason, 1984; Waldman, Siegel, & Javidan, 2006b). Furthermore, CEOs' personal attitudes and values have been shown to be a key driver of CSR (Hemingway & Maclagan, 2004), and international experience helps shape the global mindset of the CEO (Carpenter & Fredrickson, 2001; Carpenter, Sanders, & Gregersen, 2001). Such international experience and global mindset may lead to a greater focus on global issues and diversity (Carpenter & Fredrickson, 2001), and make the CEO more open to the adoption of international diversified standards of CSR.

Leaders' internationalization is also strongly associated with their flexibility using different languages, and thus their ability to moderate the effects of a single language. When exposed to a diversified language environment, during either work or education, CEOs better understand cultural dynamics and differences in social norms, and perhaps the overseas educational experience better shapes language and other skills (Whitley, 1999). Such multilingual experience helps CEOs change cognitive categories and attentions, makes them sensitive to diverse cultural expectations and social/ethical norms (Paul, Meyskens, & Robbins, 2011). Therefore, CEOs' international

[37] While firms' internationalization—foreign operations and foreign sales—can extend to both strong-FTR and weak-FTR countries, data limitations prevent us from distinguish between the two. While this is not ideal, we also note that this results in a more conservative approach since differentiating between strong- and weak-FTR internationalization would allow for more precise identification of the effect and so strengthen alignment with our theory.

experience—international work experience or overseas education[38]—should attenuate the negative effects of language FTR on CSR performance.

H4a: The negative association between CSR performance and strong FTR of the language of the firm's nationality is weaker if the CEO has more international work experience.

H4b: The negative association between CSR performance and strong FTR of the language of the firm's nationality is weaker if the CEO has more overseas education experience.

Method

Data and Sample

We test our hypotheses on several large global panels. Our primary data source for a firms CSR performance are from Morgan Stanley Capital International's (MSCI) Intangible Value Assessment (IVA) program, which measures a corporation's environmental and social *risks and opportunities*, and is compiled using company profiles, ratings, scores, and industry reports,[39] and is available from 1999 to 2011. This rating is frequently used as a measure of firm CSR performance (Ringov & Zollo, 2007; Ho et al., 2012). The data cover the well-established equity indices of the largest companies across the world rather than just selecting a specific sample of firms that engage in CSR. For example, its coverage comprises the top 1,500 companies of the MSCI World Index (expanding to the full MSCI World Index over the course of the sample period); the top 25 companies of the MSCI Emerging Markets Index; the top 275 companies by market cap of the FTSE 100 and the FTSE 250; and the ASX 200. For this large sample with global coverage, MSCI constructs a series of 29 CSR ratings for each company, covering the following dimensions: strategic governance, human

[38] Again, our classification here does not differentiate between international experience in strong-FTR and weak-FTR countries which leads to more conservative estimation of the effect of FTR. Further classifying CEOs' international experience into strong- and weak-FTR would only strengthen our results.

[39] The information on which the IVA ratings are based is extracted from the following sources: (a) Corporate documents: annual reports, environmental and social reports, securities filings, websites, and Carbon Disclosure Project responses; (b) Government data: central bank data, U.S. Toxic Release Inventory, Comprehensive Environmental Response and Liability Information System (CERCLIS), RCRA Hazardous Waste Data Management System, etc.; (c) Trade and academic journals included in Factiva and Nexis; (d) Professional organizations and experts: reports from and interviews with trade groups, industry experts, and non-governmental organizations familiar with the companies' operations.

capital, stakeholder capital, products and services, emerging markets, environmental risk factors, environmental management capacity, and environmental opportunity factors. Among a total of 29 sub-dimensions of MSCI's rating, *Labor Relations*, *Industry Specific Risk*, *Environmental Opportunity* receive the highest weights in the global rating (they account for 80%). Furthermore, we have complemented the IVA rating from MSCI with the *RiskMetrics EcoValue21 Rating* and the *RiskMetrics Social Rating*, which are provided by RiskMetrics Group and respectively capture the environmental and social aspects of CSR. To show the robustness of our results across different rating systems, we use these three CSR ratings, MCSI IVA, RiskMetrics EcoValue21 Rating, and the RiskMetrics Social Rating as the dependent variables in our study.

It is also important to note that firms in our sample are rated against their industry peers (sectorial analysis) from both domestic and international markets, thus the ratings do not depend on the cross-country difference in jurisdiction, regulation and local CSR situation. This makes our cross-country data more credible and guarantees that our CSR ratings are not biased by country-specific characteristics. Our main sample covers 91,373 firm-year observations from 59 countries. We classify our sample firms into 17 aggregated industries following the standard Kompass industry classification.

Regression model

We conduct our analysis using both random-effects and fixed-effects models in a panel dataset. Although language FTR is largely time-invariant, our CSR ratings, moderating variables, and other covariates are mostly time-variant, and in our robustness tests we examine the change of firm FTR following CEO change, thus working with panel models take into account of these time variations. Nevertheless, we also conduct OLS analysis later on to triangulate our results. The dependent variables are the three different CSR ratings described above. The key explanatory variable is the future time reference (FTR), a dummy variable indicating whether the firm's official language is a strong- or weak-FTR language.[40] It is important to note that FTR is measured at the firm-level, but for most countries in the world, the FTR of firm-level official language coincides with that of the country-level official language, except for the Belgian and Swiss firms in our sample. Other explanatory variables include

[40] Dahl & Velupillai (2011) provide a broad survey of the future tenses of languages around the world, and Chen (2013) further formalizes it. The official languages of most countries in our sample are unitary in FTR – either strong or weak. Note that this applies even to most countries that have multiple official languages. For example, in Spain, the official languages of Spanish and Catalan are both strong FTR languages (see Appendix A for more examples). Belgium and Switzerland are the only countries in our sample where both strong- and weak- FTR languages exist as official languages. We carefully classify firms based in Belgium and Switzerland according to the dominant language in the location of their headquarters.

the moderating variables: country-level *Globalization Index*, firm-level *% Foreign Assets/ Total Assets* (a proxy for firm-level internationalization), and *CEO International Work Experience* and *CEO Overseas Education Experience* (proxies for leaders' internationalization), as well as their interactions with FTR. The regression model is specified as:

$$\begin{aligned} CSR_{it} = {} & \beta_0 + \beta_1 \cdot FTR_i + \beta_2 \cdot Globalization_{it} + \beta_3 \\ & \cdot (FTR_i \times Globalization_{it}) + \beta_4 \cdot \%ForeignAssets_{it} + \beta_5 \\ & \cdot (FTR_i \times \%ForeignAssets_{it}) + \beta_6 \cdot InternationalWork_{it} \\ & + \beta_7 \cdot (FTR_i \times InternationalWork_{it}) + \beta_8 \cdot OverseasEdu_{it} + \beta_9 \\ & \cdot (FTR_i \times OverseasEdu_{it}) + \gamma \cdot X_{it} + \varepsilon_{it} \end{aligned}$$

where β's are coefficients to be estimated on the variables of interests, and X_{it} is the vector of control variables described below.[41]

The country-level control variables capturing economic and social development include *Legal Origin* (common laws versus civil laws), *Rule of Law, GDP Per Capita*. To avoid multicollinearity between legal origins and FTR, we apply a two-stage approach by regressing *Legal Origin* (the English common law dummy) on FTR in the first stage, and put its residual (which is orthogonal to FTR) as an explanatory variable, together with other independent variables, in the second stage regression. In addition, we control for potential country-level cultural channels on CSR, by including the widely-used Hofstede's five cultural dimensions (Kim & Kim, 2010). These cultural controls help explore whether non-linguistic cultural traits or norms are coincident with language to determine CSR. We focus on the countries of firms' corporate headquarters because that is the location of most senior manager decision-makers, and so likely the external environment that has the greatest influence on corporate decisions (Guler, Guillén, & Macpherson, 2002). At the firm-level, we control for ownership concentration, proxied by the ownership stakes held by the largest shareholder, and several indicators of different aspects of firms' financial performance (constraints), including ROA, Tobin's Q, interest coverage, short-term investment to operating cash flow sensitivity, and slack as proxied by the current ratio (current debt to current assets). We also control for CEO characteristics and backgrounds, such as gender and international experience.

[41] Countries with the Socialist origin are excluded from the regression due to their consistently much lower CSR ratings (on average more than 2 grades lower than the rest countries) in all dimensions, and their particularity in institutional infrastructure and legal traditions. In La Porta et al. (1998), Socialist countries were also excluded from regressions for similar reasons.

Finally, we control for time fixed effects and industry fixed effects. As a robustness check, we also control for country fixed effects, which excludes the country-specific variables such as the culture measures (but not FTR mostly because of the Belgian and Swiss firms). In these analyses, discussed in more detail below, we find that the results on FTR and its moderators are similar to the presented results. Our sample's country coverage, the official languages and their FTR are shown in Appendix A. A more detailed description on our key dependent variables—CSR ratings—are provided in Appendix B. The descriptions of our independent variables and control variables are in Appendix C. Table 1 shows the means and standard deviations of our independent variables, as well as their correlations. Few of them are highly correlated, especially with language FTR, which rules out multicollinearity concerns. Standard errors in all regressions are clustered at the firm level.

[Insert Tables 1 about here]

Results

Baseline Results

Tables 2—3 show the results on both the main effects of FTR, and the effects of various country-level and firm-level moderators as we hypothesize. The dependent variables are the overall IVA rating in Table 2, the RiskMetrics EcoValue rating (focusing on corporate environmental performance) in Panel A of Table 3, and the RiskMetrics Social rating (focusing on corporate social performance) in Panel B of Table 3. Table 3 contains exactly the same control variable set as in Table 2, but does not report all of them to preserve space. We run regressions based on these CSR ratings with standard errors clustered at the firm-level; in unreported results based on standard errors clustered at the country-level, the coefficients and standard errors are similar to clustering at the firm-level. For all three tables, the results for testing the main effect of language FTR are reported in column (1), and one moderator is tested in each specification for columns (2)—(5), and then all moderators are tested together in column (6). At a first sight, the coefficients on FTR for almost all specifications across the three tables are negative and statistically significant above the 95% confidence level. The economic significance is non-trivial either: companies in countries with strong-FTR language as their official/working language on average underperform those speaking weak-FTR languages by more than 1.2 grades of CSR rating (on a scale of 7). More specifically, companies in strong FTR countries scored 26% (-1.577/6) lower on the overall IVA ratings and around 21% (-1.252/6 or -1.246/6) lower on the environmental and social ratings than those in weak FTR countries. Therefore, our H1 that

strong language FTR (such as English, French, and Spanish) is associated with lower CSR rating, ceteris paribus, is supported.

Regarding the effects of other control variables, Column (1) of Tables 2 and 3 shows the results of regressing CSR ratings on FTR and other country-level and firm-level variables, but without interaction terms. First, at the country-level, the coefficients on the degree of country globalization are positive and statistically significant for the overall IVA ratings and the social ratings, but not for the environmental ratings. However, laws and national wealth do not seem to be a predictor of CSR, as none of the coefficients on Rule of Law, the orthogonal component of Legal Origin (English Common Law), and Ln(GDP per capita) are significant. Second, at the firm-level, higher ownership stakes held by the largest shareholder is significantly related to lower CSR rating, though the coefficient is only significant for the environmental rating. Interestingly, the coefficients of most financial performance variables (Tobin's Q, financial constraints, and interest coverage) are not statistically significant, except the one on slack (current ratio) —firms with higher current ratio actually receive lower CSR ratings. ROA shows some significant and positive relations with CSR, but the rest of the results on financial performance do not strongly support the traditional "doing good by doing well" conjecture. Third, at the individual level, CEOs' gender and international experience—either work or education—do not seem to directly contribute to CSR performance, as none of the coefficients on their main effects are significant. Furthermore, the effects of cultural dimensions are not strong, either economically or statistically, which reinforce our argument that "culture" in general (values and norms) is not a persistent predictor of CSR, while the specific underlying mechanism that carries culture—*language*—is the key determinant. Overall, the above results indicate that language FTR is a more fundamental source of CSR than the rule of law, economic development, culture, firm-level financial and operational concerns, and CEO attributes (or language FTR absorbs their effects).

We then turn to the effects of the hypothesized moderators. At the country-level, column (2) of Tables 2 and 3 show the results of having country globalization as the moderator. It is clearly shown that the coefficients on the interaction term between country globalization and FTR are all statistically significant at the 1% level, which implies that the degree of globalization of the country is a strongly positive moderator for the effect of language on CSR for all three dependent variables. Economically, a one standard deviation increase of the globalization index of a country with strong FTR leads to an average of 1.8 standard deviation increase in the CSR rating, which reduces the pure economic significance of the negative effect of FTR by more than a half. Therefore, our H2 is supported.

At the firm-level, column (3) of Tables 2 and 3 shows that the coefficients on the interaction term between "% Foreign assets"—representing the degree of internationalization of the company—and FTR are positive and statistically significant. This indicates that the degree of firm internationalization is also an important moderator for the negative effect of language on CSR. Economically, a one standard deviation increase of the percentage of foreign assets over the firm's total assets in a strong FTR country induces an average of 0.48 standard deviation increase in the CSR rating, which also lowers that of the negative effect of FTR by more than a half. When the variable "% Foreign assets" is replaced by "% Foreign sales", the effect is similar. Therefore, our H3 is upheld.

The CEO's overseas educational background is a strong moderator for FTR on all CSR ratings, as the coefficients on its interaction with FTR are all positive and statistically significant. The economic significance of the interaction terms is again about half of that of FTR's main effect (a firm with a strong FTR language scores 1.8 grades lower in the CSR rating on average, which is weakened by about 1 grade if the CEO had overseas education). However, it is not so for CEO's international work experience, as the coefficients on its interaction with FTR are not significant. Such lack of a work experience moderating effect may be a result of an expatriate enclave process such that although the CEO worked in an international location, they may have still lived among other expatriates so the international culture may not have had as strong an effect. Overall, CEO's international experience does play a significant moderating role in attenuating the negative effect of language FTR, but this role is mainly carried out through CEO's overseas education. This may imply that a global mindset on sustainable strategies and multilingual skills are more likely to have been acquired by the CEO during the education rather than work experience. This result largely supports H4b, though not H4a. Language remains the most consistent and significant predictor of CSR. Finally, when we include all interaction terms together in one model (column (6) in Table 3 and 4), the statistical significance of most interaction terms remains, which confirms our above results. We rely on these partial models (column (2—5) in Table 2 and 3) for testing our moderator hypotheses, since the full model (column (6) of Table 2—3) may suffer from multicollinearity due to multiple interactions.

[Insert Tables 2 and 3 about here]

Robustness Checks

The above results are robust to clustering standard errors at the country-level rather than at the firm-level. In fact, the standard errors between the two types of clustering are not very different in our sample. In addition, to triangulate the measurement of CSR (Delmas, Etzion,& Nairn-Birch, 2013), we have utilized our rich CSR data and tested the above relationships using other CSR samples,

including MSCI Impact Monitor, Vigeo Corporate ratings, and Asset4 ratings, which are all firm-level panel data with global coverage (results available on request). The Vigeo and Asset4 ratings range from 0 to 100, giving more credit to our reduced-form estimation. In addition, the Asset4 data mainly focus on CSR at the level of the locally listed subsidiary rather than that of the headquarters, which generalizes our previous findings to multilevel corporate decision making. Most of the above results still hold: Language FTR remains significantly negative, and the effects of all three moderating variables remain significant and positive.

Excluding Colonizers and Scandinavian Countries

To further check the robustness of these results, we conduct several additional tests and the results are shown in Panel A of Table 4.[42] For simplicity and to preserve space, we only report the main effects of FTR and those key moderating variables, rather than their interactions and other control variables, although in unreported regressions, their effects are still there. First, we exclude the parent countries (Britain, France, and Germany) and Scandinavian countries from the regressions and only analyze the former colonies (Column 1), so as to rule out the possibility that the language effect is driven by a "Scandinavian bias" or a "parent-country bias". Again, the coefficient on FTR is negative and significant, with similar magnitude as before.

OLS Estimation

Second, one may argue that OLS estimation is a more appropriate approach given the time-invariant feature of FTR. Therefore, we estimate the same specification with both pooled OLS (Column 2) and cross-sectional OLS (Column 3). For cross-sectional OLS, we take the mean value of each variable over the sample period. Including many control variables with missing values inevitably shrinks our sample size to 646, but in unreported regressions when fewer control variables (thus more observations), the negative effect of FTR remains.

Weak- and strong-FTR languages within one country

Third, in order to investigate the within-country variation in CSR, we only focus on the subsample of Belgium and Switzerland where both strong- and weak-FTR languages. Belgium has three official languages: Dutch, French, and German, with Dutch and German are classified as weak-FTR languages, and French is a strong-FTR language. Switzerland has four official languages: German,

[42] We have also conducted a number of other robustness tests; such as including the country-level linguistic concentration index and various other control variables in our model. Adding these additional control variables did not substantially change the effects of FTR and other moderators. To preserve space, we don't report all results from these additional robustness tests here (available upon request).

French, Italian and Romansh. Three of them are classified as strong-FTR languages: French, Italian, and Romansh. These two countries therefore provide an interesting opportunity to examine the effect of language within one country, holding other country-specific institutional characteristics fixed. If we still observe similar patterns of CSR across different regions within the same country, it is more likely a language effect rather than country-specific effect.

The results from this within-country analysis based on Belgian and Swiss firms are reported in Column 4 of Table 4, which again reinforce our earlier conjecture on the language effects. The coefficient on FTR is negative and significant, and its economic magnitude (2.808) is even as twice as that for the global sample. This makes our arguments even stronger, as companies within the same country face almost identical legal, institutional, and cultural environments, and the major different is their official language (thus less omitted variable bias), and one would reasonably expect that the language effect becomes stronger. This within-country result further eliminates the concern that the observed correlation between FTR and CSR is not driven by other country-level factors such as legal origins, institutions, and regulations which do not have significant within-country variations.

Controlling for Religion in Christianity-Majority Societies

Fourth, one may raise the concern that the variation in CSR performance across the world is driven largely by religion and religiosity—believed to shape the value and norms in a society—which have been documented as an important factor in influencing economic behavior (e.g., Iannaccone, 1998; Barro & McCleary, 2003). We therefore address this concern by including a religion variable in a subsample of religion-dense countries (Column 5). Given that Christianity is the most widespread religion in the world and closely related to work and social ethics (Arruñada, 2010), we rerun the afore-specified regressions based on a subsample of Christianity-majority countries—those with more than 50 percent of population being Christians—and use the ratio of the percentage of Catholics to the percentage of Protestants as a proxy for the influence of religions. As shown in Column 5, the coefficient of FTR is still negative and significant, with similar magnitude, while that of the Catholic-Protestant ratio is not. This may suggest that the language effect is not driven by religions.

Finally, we control for country fixed effects in order to rule out concerns about alternative country-level processes that could endogenously affect our results. Country fixed effects take into account of all unobservable time-invariant country-level factors that can drive CSR. This will inevitably omit all our time-invariant country-level variables such as legal origins and cultures (FTR is not omitted because it is measured at the regional/firm level). So we only report the results on the specifications with un-omitted variables with overall IVA ratings as the dependent variable in Panel B of Table 4.

Expectedly, the significance of most interaction terms remains after this strong test of including country fixed effects, and the significance of FTR becomes even stronger both statistically and economically.

[Insert Table 4 about Here]

Alternative Measures of Language Structure

To further triangulate our previous results and eliminate the concern that the FTR dummy is not a proxy for language but some other country- or firm-level factors, we replace the FTR dummy with two continuous measures of language structure from Chen (2013), which measure how frequently a language grammatically marks future time. First, we examine the Verb Ratio measure, which counts the number of verbs which are grammatically future-marked, divided by the total number of future-referring verbs. In Columns (1)—(3), we report model specifications with the previously used baseline specification (without interaction terms to preserve space), with FTR replaced by this Verb ratio. We find that the lower the percentage of verbs that are grammatically future-marked, the higher the CSR ratings. The estimated effects are still statistically significant and economically sizable. A one standard deviation reduction in verb ratio (37.2%) corresponds to 0.856 (= 0.023 × 37.2%) percentage points higher in the overall CSR rating, and 0.707 percentage points higher in the environmental rating and the social rating.

Second, we examine the sentence ratio measure, which calculates the proportion of sentences about the future that contains a grammatical future-marker. In Columns (4)—(6), we find that the smaller the percentage of sentences that are grammatically future-marked, the higher the CSR ratings. Again, the estimated effects are statistically significant and economically sizable. A one standard deviation reduction in Sentence Ratio (40.2%) corresponds to 0.925 (= 0.023 × 40.2) percentage points higher in the overall CSR rating, and 0.8 percentage points higher in the environmental rating and the social rating. Therefore, the previous conclusion of a significant relation between language and CSR is further supported when we consider two alternative and continuous measures of language structure.

[Insert Table 5 about Here]

Establishing Causality: A Quasi-Experiment of CEO Change

One major concern of the above analysis is that they mainly show correlations, rather than causality, between language FTR and various firm-level CSR ratings. Controlling for the country fixed effects and the subsample analysis of Belgian and Swiss firms largely rule out many cross- and within-country alternative channels, one may still concern about other unobservable firm-level factors. To further establish causality, we exploit a quasi-experiment by investigating firm CSR change surrounding the change of CEOs with different FTRs of their native languages. We employ a twofold difference-in-difference (DiD) design based on one treatment and two natural control groups. Our treatment group consists of firms that experienced a FTR change of their CEO. We first run regressions on the whole sample, treating all firms which did not experience CEO's FTR change as the control group (Panel A of Table 6).[43] We then run regressions on the subsample of firms which experienced CEO change (but not necessarily CEO's FTR change), treating those firms with CEO change but without FTR change as the control group (Panel B of Table 6). Given that only a small number of companies changed CEOs with different FTRs in our sample, we have to leave out some control variables with many missing values so as to preserve our sample size. Nevertheless, we show in Table 6 the results from including few control variables to including a longer series of control variables.[44]

Several interesting observations emerge. First, when the native language of CEO changed from strong-FTR to weak-FTR (Columns 1—4 in Panel A and Columns 1—3 in Panel B), the firm's CSR score significantly increased by about 0.4 grades on average. Second, when the native language of CEO changed from weak-FTR to strong-FTR (Columns 5—6 in Panel A and Columns 4—5 in Panel B respectively), the firm did not experience significant CSR change. It is worth mentioning that in a time-series setting, once a firm achieves a certain standard of CSR, it is very *unlikely* that they will *downgrade* this standard, even following a change of CEOs' native language from weak-FTR to strong-FTR. Third, the effects of other control variables do not differ much regardless which control group

[43] When the panel data regression is run on the whole sample, one has to control for the fact that a firm experienced an FTR-change, regardless in which year this change happened. Therefore we include the control variable "CEO's FTR change" which takes the value of one for all the years of the focal firm if an FTR-change happened for this firm in our sample period, and zero otherwise.

[44] The control variables we leave out are Financial constraints, Current ratio, %Foreign assets, CEO gender, CEO international work experience, CEO overseas education experience, and the Hofestede cultural variables. The main reason for leaving out those variables is that the missing observations in these variables will inevitably further reduce our number of observations with CEO change, the fact that there are fewer control variables in Panel B (subsample of CEO change) than in Panel A (the whole sample) is due to the concern of preserving sufficient number of observations in the subsample. If we include the full set of control variables in Panel B as in Panel A, there will be insufficient observations.

we use, further indicating that the CSR change is induced by CEO's FTR change. Ideally, we could have investigated the change of CSR several years after CEO's FTR change, but this will result in insufficient observations in our sample. Nevertheless, the immediate change of firm CSR following CEO's FTR change is consistent with the previous findings and gives strong supports to our hypotheses from the causality perspective.

[Insert Table 6 about Here]

FTR and Other Future-Oriented Corporate Actions

Finally, we also test the effects of FTR on other future-oriented corporate actions to provide additional validation that FTR usage leads to future-oriented corporate actions. A commonly used proxy for corporate future-oriented action is R&D expenditures. As a final robustness check of whether language FTR of corporate leaders really alters firm future-orientation, we take various measures of R&D expenditures as dependent variables, and regress on FTR, together with other controls and industry- and year-fixed effects. These different measures of R&D include a) overall R&D expenditure, scaled by total assets ("R&D expenditure/assets"), b) R&D expenditures on new environmentally friendly products or services, scaled by sales revenue ("Environmental R&D"), c) a score on environmental R&D ranging from 0 to 100 ("Environmental R&D - Score"), and d) a dummy variable indicating whether the focal firm spent on environmental R&D ("Environmental R&D - Dummy"). The results are shown in Table 6. First, Panel A of Table 6 shows that the three aggregate CSR measures—overall CSR, environmental, and social—are strongly correlated with all measures of R&D expenditures, both economically and statistically. This may potentially indicate that CSR and R&D activities share similar components. Panel B of Table 7 shows the results of regressing various R&D measures on FTR (Columns 1-3 are GLS estimations and Column 4 is Probit estimation). Interestingly, throughout all regressions, the coefficients on FTR remain to be negative and statistically significant, with similar economic magnitudes. This implies that, *ceteris paribus*, firms with strong-FTR languages as their official language spent less on R&D expenditures (future-oriented investment). If one accepts the notion that R&D expenditures signify long-term orientation, these results further support our previous results on CSR, and suggests that cognitive categories separately by grammatical structure do induce decision-makers to be less future-oriented.

[Insert Table 7 about Here]

Discussion and Conclusion

The question of whether languages shape the way people think goes back centuries; Charlemagne (AD 742—814) proclaimed that "to speak another language is to possess another soul." Linguists have long believed that people from culturally different backgrounds tend to order their worlds differently based on the language they use, such that some languages are hinged to categorical structures where time is conceptualized in more abstract terms. In this study, we link language as a culturally embedded context with corporate decision making on future-oriented behaviors, by focusing on whether languages with strong future-time reference (i.e., grammatically separate the current tense from the future tense), in which the categorical boundaries between present the future are sharper and more salient, lead corporate decision makers to focus more on the present while neglect (or discount the importance of) the future, thus significantly reduce firms' propensity to engage in CSR activities.

A key aspect in researching issues of cultural and cognitive mechanisms in organizational context is to identify relatively exogenous factors that affect corporate behavior and strategy. In this sense, language, which is shaped by historical and geographical factors, can be seen as such an explanatory factor. Our empirical results confirm this argument: after clustering standard errors, adding a large set of country- and firm-level control variables and country fixed effects, language FTR is the most consistent predictor of CSR across a large sample of global firms. Further supporting our theory is that several country-level and firm-level factors that are related to internationalization significantly act as moderators for such language-driven effects. We take this as strong evidence that FTR strength in corporate decision makers' language of use affects the extent to which they enact future-oriented strategies: caring about environmental and social issues in order to achieve both corporate and societal sustainability in the long run. We see our results as having important contributions to two different literatures; the globalization of CSR, and how leader attention and cognition affect organizations strategies and behaviors.

Contributions to Research on Global CSR and Management Practice

Over recent decades, researchers have begun to understand how various institutionally-embedded organizational behaviors, such as CSR, vary across countries, with most investigations focusing on the standard set of NBS—cultural, political, legal and economic systems—examined in other studies (e.g., Aguilera et al., 2007; Matten & Moon, 2008; Ioannou & Serafeim, 2012). While the NBS categories of formal institutions such as the political and legal systems are usually context-specific, cultures are broader and more persistent, and thus may better capture various aspects of

business ethics and behavior (Hofstede, 1980; Hofstede & Hofstede, 2005; Waldman et al., 2006a).

However, as the inconclusive findings that aim to connect underlying cultural dimensions and CSR suggest, conceptualizing and measuring culture is difficult and subjective due to its broad and intangible nature. Our approach in focusing on linguistic differences adds insight into understanding the international variation in CSR practices and their cultural roots, thus our findings have important implications for both the research and practice on this topic. As we show, cross-national variation in CSR is not a direct function of cultural perceptions as conceived by standard typologies, but stems from language use, which is an underlying feature that shapes cultural values and the norms in a society. None of these is to deny the importance of culture in driving organizational behavior such as CSR. The bottom line of our results is that language, while reflecting culture values, can also directly affect organizational behavior through its impact on decision makers' future-orientation. Our empirical results not only add to the debate on the fundamental determinants of CSR, but also contribute to the understanding of the fundamental roles of languages in shaping economic behavior, and demonstrate that global CSR research can benefit from incorporating language into explanatory models. Like the Chen (2013) study that examined individual level differences as a function of language use, we believe our study is really only a first step in identifying a novel, yet highly important underlying factor that shapes cross-national organizational behavior.

Furthermore, recent studies also argue that the spread of CSR globally is driven by isomorphic forces as firms and countries seek to gain institutional legitimacy (Matten & Moon, 2008). As business has globalized over the past decade, there has been increasing pressure on companies around the world to join in the global movement for corporate social responsibility (Ioannou & Serafeim, 2012). Moreover, the multilevel interactions between individual, organizational, and social changes gradually eliminate the gap across countries in their CSR policies and practices (Aguilera et al., 2007). Our study contributes to understanding the globalization of CSR by showing that internationalization at the home-country level, the firm level, and the leader level interacts with culturally-embedded language, which can significantly reduce the negative effect of language FTR on CSR. We believe such a multilevel approach can be applied to study the globalization of other organizational behavior in the contexts of international management and global strategy. Such scope and approach echo the economics literature on cross-country variation in management practice (e.g., Bloom & Van Reenen, 2007) and corporate governance practice (e.g., La Porta et al., 1998).

Contributions to Research on the Cognitive Bases of Corporate Strategy

There is increasing attention paid to how cognition affects corporate action. However, while research has focused on capturing the content and variation in leaders' cognition, without systematic longitudinal data, it is difficult to rule-out the possibility that this variation reflects underlying industry or corporate characteristics. Even allowing for longitudinal analysis, the focus in the literature is on coding leaders' cognition through archival documents such as CEO letters in Annual Reports (e.g. Abrahamson & Hambrick, 1997; Barr et al., 1992; Cho & Hambrick, 2006), or use proxies such as managers' demographic backgrounds, as is common in top management teams research (e.g. Hambrick & Mason, 1984). However, there are significant questions about how accurately these approaches capture differences in leader cognition, since it is well known that public relations and marketing firms are heavily involved in creating annual reports. Thus, in traditional research on the cognitive bases of strategy, there has been a tradeoff between accurately assessing cognition with detailed observational data that is difficult to collect longitudinally, and being able to firmly establish a causal link with a corporate level outcome.

By identifying important linguistic differences across companies' working languages, we have introduced a new, important—and exogenous—factor into this literature that allows us to make a valid link between assessed cognitive variation and corporate behaviors around the globe. Almost twenty years ago, Meindl et al. (1994: 293) predicted that "(i)n the future, the most important studies will clearly show linkages between cognition, behavior, and organizational outcomes." Yet, because of the fundamental difficulty in assessing cognition and connecting it to outcome, studies that can firmly make this link are rare (Kaplan, 2011). Examining how and why language affects the conceptual categories of managers is essential to understanding differences in global organizational behaviors (Chen et al., 2015). We acknowledge that there are limitations to our research, especially on how languages affect other future-orientated strategic corporate decisions. We thus encourage future research to build on our study in a number of different directions. We believe that studies of effects of FTR on organizational behaviors may be able to show additional future behaviors affected by this important variable. Corporate social responsibility, as an obviously future-oriented behavior, was a natural first choice of investigation, but like the economic studies that have tied FTR use to a range of individual behaviors (Chen, 2013), we believe that showing how language use shapes firms at a more fundamental level will be very important to understanding global organizational behavior more generally.

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Table 1. Correlations of Independent Variables

	Mean	S.D.	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
(1) FTR	0.72	0.45	1.00														
(2) Rule of law	1.52	0.34	-0.00	1.00													
(3) English legal origin	0.63	0.48	0.72*	0.29*	1.00												
(4) Ln(GDP per capita)	10.5	0.36	0.02*	0.62*	0.16*	1.00											
(5) Globalization index	78.6	8.78	0.29*	0.51*	0.16*	0.15*	1.00										
(6) % Foreign assets	25.4	26.0	-0.19*	0.11*	-0.24*	-0.00	0.24*	1.00									
(7) % Largest owner shares	25.1	30.9	-0.08*	0.01*	-0.08*	-0.15*	0.21*	0.07*	1.00								
(8) Tobin's Q (winsor.)	2.82	1.87	0.15*	0.06*	0.17*	0.04*	0.09*	0.03*	-0.03*	1.00							
(9) ROA	0.05	0.07	0.07*	0.02*	0.10*	0.07*	0.01*	-0.00	-0.04*	0.41*	1.00						
(10) CEO gender	0.98	0.12	-0.03*	-0.04*	-0.05*	-0.03*	-0.03*	0.00	0.02*	0.01*	-0.02*	1.00					
(11) CEO intl. work	0.44	0.50	-0.15*	-0.00	-0.26*	-0.11*	0.24*	0.30*	0.22*	-0.02*	-0.04*	-0.02*	1.00				
(12) CEO overseas educ.	0.20	0.40	-0.10*	-0.04*	-0.10*	-0.14*	0.08*	0.15*	0.08*	-0.01*	-0.03*	0.02*	0.31*	1.00			
(13) Interest coverage	17.1	29.4	-0.17*	-0.06*	-0.09*	0.04*	-0.24*	-0.05*	-0.04*	0.23*	0.39*	-0.01*	-0.01*	-0.02*	1.00		
(14) Financial constraints	0.28	10.6	-0.01*	-0.00	-0.01*	-0.00	0.00	0.00	0.01*	-0.00	0.00	0.00	0.01	0.01	0.01*	1.00	
(15) Slack	1.72	1.57	-0.03*	0.01*	0.03*	0.04*	-0.08*	-0.04*	0.03*	0.05*	0.10*	0.02*	-0.01*	0.05*	0.37*	0.06*	1.00

* $p < 0.05$

Table 2. GLS Regression on the Determinants of CSR: Intangible Value Assessment (IVA) Ratings

DV = IVA ratings	(1)		(2)		(3)		(4)		(5)		(6)	
Language effect												
FTR	-1.577***	(0.355)	-6.434***	(1.648)	-2.747***	(0.727)	-1.750**	(0.782)	-2.069***	(0.697)	-5.946***	(1.656)
FTR × Globalization			0.062***	(0.019)							0.050***	(0.019)
FTR × Foreign assets					0.028***	(0.009)					0.016*	(0.009)
FTR × CEO intl. work							0.210	(0.508)			-0.605	(0.489)
FTR × CEO overseas edu									1.236***	(0.629)	0.814	(0.645)
Economic development												
Globalization index	0.097**	(0.039)	-0.010	(0.054)	0.095***	(0.038)	0.096**	(0.040)	0.101***	(0.038)	0.018	(0.049)
Rule of law	0.034	(0.304)	1.224	(0.710)	0.182	(0.661)	0.071	(0.697)	0.089	(0.682)	0.995	(0.662)
Legal origin (residual)	0.798	(1.384)	-2.190	(1.547)	0.442	(1.339)	0.746	(1.413)	0.775	(1.372)	-1.649	(1.424)
Ln(GDP per capita)	-0.293	(0.371)	-0.576	(0.371)	-0.286	(0.366)	-0.291	(0.369)	-0.234	(0.369)	-0.482	(0.372)
Firm structure & performance												
% Foreign assets	0.001	(0.003)	-0.000	(0.003)	-0.025***	(0.009)	0.001	(0.003)	0.001	(0.003)	-0.014*	(0.008)
% Largest owner shares	-0.003	(0.003)	-0.003	(0.003)	-0.003	(0.003)	-0.003	(0.003)	-0.003	(0.003)	-0.003	(0.003)
Tobin's Q (winsorized)	0.063	(0.044)	0.054	(0.043)	0.064	(0.043)	0.062	(0.044)	0.068	(0.043)	0.061	(0.043)
ROA	2.660*	(1.362)	2.769**	(1.380)	2.889**	(1.337)	2.667**	(1.360)	2.718**	(1.338)	2.899**	(1.354)
CEO backgrounds												
Gender	-0.465	(0.823)	-0.488	(0.821)	-0.476	(0.826)	-0.460	(0.822)	-0.486	(0.821)	-0.518	(0.825)
International work	-0.035	(0.167)	-0.081	(0.163)	-0.047	(0.165)	-0.228	(0.481)	-0.040	(0.166)	0.477	(0.453)
Overseas education	0.027	(0.229)	0.091	(0.226)	0.102	(0.230)	0.033	(0.229)	-1.021*	(0.605)	-0.587	(0.619)
Controls	Yes		Yes		Yes		Yes		Yes		Yes	
Industry fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes		Yes		Yes	
Adj. R-squared	21.9%		23.2%		22.8%		21.9%		22.6%		23.9%	

N = 9756. Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01. The cultural controls include the five Hofstede cultural dimensions: (1) power distance, (2) individualism, (3) masculinity, (4) uncertainty avoidance, and (5) pragmatism, and the financial controls are firm-level financial variables: interest coverage, financial constraints, financial slack (current ratio).

Table 3. GLS Regression on the Determinants of CSR: Environmental and Social Ratings

Panel A. Dependent variable is firm-level Environmental rating

	(1)	(2)	(3)	(4)	(5)	(6)
FTR	-1.252*	-5.581***	-2.018***	-1.435**	-1.673**	-5.030***
	(0.690)	(1.303)	(0.781)	(0.789)	(0.721)	(1.285)
FTR × Globalization		0.055***				0.047***
		(0.015)				(0.016)
FTR × foreign assets			0.019***			0.005
			(0.010)			(0.009)
FTR × CEO international work				0.242		-0.595
				(0.480)		(0.560)
FTR × CEO overseas education					1.094**	0.903*
					(0.491)	(0.550)
Globalization index	0.014	-0.059	0.044	0.045	0.047	-0.037
	(0.016)	(0.049)	(0.031)	(0.032)	(0.031)	(0.047)
% Foreign assets	0.005*	0.005	-0.013	0.005*	0.005*	0.0004
	(0.003)	(0.003)	(0.009)	(0.003)	(0.003)	(0.009)
International work	0.139	0.115	0.121	-0.086	0.143	0.669
	(0.154)	(0.152)	(0.154)	(0.469)	(0.153)	(0.533)
Overseas education	-0.002	0.061	0.045	0.010	-0.933**	-0.733
	(0.184)	(0.183)	(0.182)	(0.186)	(0.473)	(0.528)
Controls & fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	19.2%	20.2%	19.5%	19.2%	19.7%	20.5%

N = 19936. Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01

Panel B. Dependent variable is firm-level Social rating

	(1)	(2)	(3)	(4)	(5)	(6)
FTR	-1.246**	-4.733***	-2.010***	-1.363**	-1.545**	-4.336***
	(0.582)	(1.457)	(0.659)	(0.637)	(0.546)	(1.436)
FTR × globalization		0.045***				0.038**
		(0.017)				(0.017)
FTR × foreign assets			0.020**			0.011
			(0.008)			(0.008)
FTR×CEO international work				0.154		-0.542
				(0.447)		(0.482)
FTR×CEO overseas education					0.890*	0.530
					(0.546)	(0.604)
Globalization index	0.065**	-0.024	0.061*	0.064*	0.064**	-0.006
	(0.032)	(0.048)	(0.032)	(0.034)	(0.033)	(0.044)
% Foreign assets	0.002	0.002	-0.016**	0.002	0.002	-0.008
	(0.003)	(0.003)	(0.008)	(0.003)	(0.003)	(0.008)
International work	-0.026	0.051	-0.037	0.168	-0.028	0.444
	(0.167)	(0.163)	(0.165)	(0.420)	(0.166)	(0.444)
Overseas education	0.143	0.204	0.201	0.149	-0.611	-0.245
	(0.207)	(0.207)	(0.207)	(0.208)	(0.530)	(0.588)
Controls & fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Adj. R-squared	20.1%	21.0%	20.6%	20.1%	20.5%	21.3%

N = 12522. Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01

Table 4. Other robustness checks

Panel A. Subsample Analysis and OLS Regressions

	(1)		(2)		(3)		(4)		(5)	
DV = IVA ratings	Excluding parent countries		Pooled OLS		Cross-sectional OLS		Belgian and Swiss firms		Christianity-majority countries	
FTR	-1.173*	(0.662)	-1.577**	(0.651)	-1.280***	(0.393)	-2.808***	(0.409)	-1.552***	(0.552)
Globalization index	0.074*	(0.038)	0.097**	(0.040)	0.0544**	(0.024)	30.245	(21.569)	0.148***	(0.032)
% Foreign assets	0.004	(0.004)	0.0007	(0.003)	-0.000521	(0.003)	-0.0037	(0.023)	0.003	(0.003)
International work	-0.368**	(0.175)	-0.035	(0.167)	0.102	(0.157)			-0.069	(0.170)
Overseas education	-0.146	(0.277)	0.027	(0.229)	0.0239	(0.204)	-3.180*	(1.651)	0.178	(0.231)
Catholic/Protestant ratio									-0.0015	(0.005)
Other control variables	Yes		Yes		Yes		Yes		Yes	
Industry & year fixed effects	Yes		Yes		No		Yes		Yes	
Observations	7168		9756		646		135		9103	
R-squared	0.2616		0.2268		0.1021		0.9581		0.2699	

All columns contain the same set of control variables as in the previous table, but do not report them to preserve space. Column (1) shows the results of a subsample by excluding British, German, French, and Scandinavian companies from the whole sample. Column 2 shows the results from pooled OLS estimation on the whole sample. Column 3 shows the results from cross-sectional OLS. Control variables in all columns are as before, including the five Hofstede cultural dimensions and firm-level financial variables: interest coverage, financial constraints, financial slack (current ratio). Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01.

Panel B. Controlling for Country Fixed Effects

	(1)		(2)		(3)		(4)		(5)	
FTR	-4.395***	(0.851)	-4.386***	(0.852)	-4.896***	(0.833)	-4.190***	(0.949)	-5.026***	(0.896)
FTR × globalization			-0.149***	(0.041)						
FTR × foreign assets					0.091**	(0.008)				
FTR × CEO international work							-0.271	(0.298)		
FTR × CEO overseas education									0.957***	(0.201)
Globalization index	0.029	(0.034)	0.126***	(0.040)	0.031	(0.036)	0.029	(0.034)	0.024	(0.033)
% Foreign assets	-0.000	(0.004)	-0.000	(0.004)	-0.017**	(0.007)	-0.000	(0.004)	0.000	(0.004)
CEO international work	-0.080	(0.198)	-0.080	(0.198)	-0.083	(0.197)	0.171	(0.298)	-0.078	(0.200)
CEO overseas education	0.103	(0.148)	0.102	(0.147)	0.139	(0.148)	0.095	(0.147)	-0.727***	(0.228)
Other control variables	Yes		Yes		Yes		Yes		Yes	
Industry & year fixed effects	Yes		Yes		Yes		Yes		Yes	
Country fixed effects	**Yes**		**Yes**		**Yes**		**Yes**		**Yes**	
R-squared	25.7%		24.9%		25.2%		24.8%		25.2%	

N = 9821. All regressions controlled for country fixed effects, industry fixed effects, and year fixed effects, as well as all time-variant control variables included in previous specifications. Control variables in all columns are as before, including the five Hofstede cultural dimensions and firm-level financial variables: interest coverage, financial constraints, financial slack (current ratio).Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01.

Table 5. Alternative Measures of Language Structure

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent variable:	IVA ratings	EcoValue ratings	Social ratings	IVA ratings	EcoValue ratings	Social ratings
Verb ratio	-0.023**	-0.019*	-0.019**			
	(0.010)	(0.011)	(0.009)			
Sentence ratio				-0.023**	-0.020*	-0.020**
				(0.010)	(0.011)	(0.009)
Rule of law	0.783	1.070	1.087*	0.712	0.977	1.021
	(0.650)	(0.682)	(0.644)	(0.651)	(0.692)	(0.649)
Legal origin (residual)	-0.598	-2.533*	-1.245	-0.445	-2.488*	-1.158
	(1.424)	(1.506)	(1.321)	(1.413)	(1.509)	(1.332)
Ln(GDP per capita)	0.470	-0.165	-0.072	0.604	-0.063	0.046
	(0.971)	(0.800)	(0.956)	(0.974)	(0.795)	(0.961)
Globalization index	0.074*	-0.005	0.024	0.064	-0.011	0.016
	(0.043)	(0.041)	(0.040)	(0.044)	(0.042)	(0.040)
%Foreign assets	0.0005	0.006**	0.003	0.0004	0.006**	0.003
	(0.004)	(0.003)	(0.003)	(0.004)	(0.003)	(0.003)
Largest owner shares	-0.003	-0.007**	-0.004	-0.003	-0.007**	-0.004
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
Tobin's Q (winsorized)	0.050	0.105***	0.058	0.050	0.105***	0.058
	(0.046)	(0.040)	(0.043)	(0.046)	(0.040)	(0.043)
ROA	3.214**	1.815	3.585**	3.221**	1.789	3.583**
	(1.568)	(1.200)	(1.412)	(1.565)	(1.188)	(1.407)
Gender	0.775	1.046	1.174	0.774	1.042	1.173
	(0.974)	(0.718)	(0.820)	(0.974)	(0.718)	(0.820)
International work	0.079	0.214	0.078	0.078	0.212	0.076
	(0.179)	(0.164)	(0.179)	(0.179)	(0.164)	(0.178)
Overseas education	0.012	-0.006	0.140	0.011	-0.0111	0.138
	(0.255)	(0.202)	(0.232)	(0.255)	(0.202)	(0.232)
Observations	8,960	18,889	11,549	8,960	18,889	11,549
R-squared	27.2%	21.8%	25.1%	27.3%	21.8%	25.2%
Controls	Yes	Yes	Yes	Yes	Yes	Yes
Year & Industry FEs	Yes	Yes	Yes	Yes	Yes	Yes

Verb ratio is the number of verbs which are grammatically future-marked, divided by the total number of future-referring verbs. Sentence ratio is the proportion of sentences regarding the future which contains a grammatical future-marker. These classifications are based on Chen (2013). Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01. The cultural controls include the five Hofstede cultural dimensions: (1) power distance, (2) individualism, (3) masculinity, (4) uncertainty avoidance, and (5) pragmatism, and the financial controls are firm-level financial variables: interest coverage, financial constraints, financial slack (current ratio)

Table 6. Quasi-Experiment: CEO Change and FTR Change

	Panel A. The whole sample						Panel B. Subsample of CEO change				
DV = IVA ratings	Change to weak-FTR				Change to strong-FTR		Change to weak-FTR			Change to strong-FTR	
	(1)	(2)	(3)	(4)	(5)	(6)	(1)	(2)	(3)	(4)	(5)
CEO's FTR change	0.428**	0.394**	0.398**	0.524**	-0.190	0.238	0.392**	0.391**	0.448***	0.482	0.502
× Year of change	(0.190)	(0.190)	(0.191)	(0.261)	(0.235)	(0.409)	(0.170)	(0.170)	(0.172)	(0.359)	(0.339)
CEO's FTR change	0.838*	0.520	0.470	0.172	0.515	-0.391					
	(0.509)	(0.505)	(0.498)	(0.633)	(0.765)	(1.543)					
Rule of law		-0.678***	-0.584***	-0.871***		-0.869***		2.347**	1.785*		1.871
		(0.0935)	(0.102)	(0.166)		(0.166)		(0.913)	(0.933)		(1.467)
Legal origin (residual)		0.0529	0.115	0.292		0.294		-0.700	-0.682		-0.708
		(0.124)	(0.129)	(0.242)		(0.243)		(0.558)	(0.572)		(0.665)
Ln(GDP per capita)		0.568***	0.463***	0.664***		-0.0062***		-1.455*	0.332		0.314
		(0.0642)	(0.0697)	(0.120)		(0.0023)		(0.834)	(0.942)		(1.723)
Globalization index		0.0412***	0.0396***	0.0499***		-0.0499***		-0.0188	-0.117**		-0.112**
		(0.00403)	(0.00424)	(0.00761)		(0.0101)		(0.0391)	(0.0470)		(0.0561)
Tobin's Q (winsorized)			-0.0316***	-0.0501***		0.492*			0.244***		0.234**
			(0.00696)	(0.0101)		(0.262)			(0.0513)		(0.116)
% Largest owner shares				-0.0062***		0.0023***					
				(0.00224)		(0.0008)					
ROA				0.477*		0.668***					
				(0.262)		(0.120)					
Interest coverage				0.0023***		0.0498***					
				(0.000752)		(0.00762)					
Constant	3.073***	-5.109***	-3.844***	-6.177***	3.077***	-6.202***	2.249***	15.39*	5.376	2.257***	5.008
	(0.0446)	(0.674)	(0.727)	(1.264)	(0.0446)	(1.266)	(0.226)	(8.102)	(8.525)	(0.704)	(16.00)
Year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
N	26389	25301	19967	7356	26389	7356	833	833	780	833	780

Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01.

Table 7. Language FTR and R&D Expenditures

Panel A. Correlations between CSR Ratings and R&D Expenditures

		(1)	(2)	(3)	(4)	(5)	(6)	(7)
(1)	IVA rating	1.0000						
(2)	EcoValue rating	0.6928*	1.0000					
(3)	Social rating	0.9736*	0.6283*	1.0000				
(4)	R&D expenditure/assets	0.0341*	0.0203*	0.0251*	1.0000			
(5)	Product Innovation - Environmental R&D score	0.1809*	0.1942*	0.1589*	-0.0500*	1.0000		
(6)	Product Innovation - Environmental R&D expenditure	0.1129*	0.1630*	0.1020*	-0.0309*	0.2270*	1.0000	
(7)	Product Innovation - Environmental R&D value	0.1811*	0.1870*	0.1608*	-0.0528*	0.9886*	0.2187*	1.0000

Panel B. The Effects of FTR on R&D Expenditures

	(1)	(2)	(3)	(4)
Dependent variables:	*R&D expenditure/ assets*	*Environmental R&D expenditure*	*Environmental R&D score*	*Environmental R&D dummy*
FTR	-4.692*	-3.092***	-3.118*	-2.242***
	(2.798)	(0.745)	(1.644)	(0.403)
Ln(GDP per capita)	1.724	-1.950**	-5.573**	1.380***
	(3.566)	(0.919)	(2.637)	(0.355)
Foreign assets%	0.00962	-0.0337***	0.0231	0.0121***
	(0.0398)	(0.0122)	(0.0261)	(0.0028)
Ownership dispersion	-0.0151	0.280	0.0705	0.0287
	(0.498)	(0.183)	(0.344)	(0.0738)
Tobin's Q, winsorized 5%	3.022***	-0.138	-0.388	0.160***
	(0.694)	(0.187)	(0.377)	(0.0448)
ROA	-7.675	-22.90***	-5.315	2.978**
	(26.43)	(7.295)	(13.13)	(1.262)
Interest coverage	0.0252	0.0191	-0.00541	-0.0178***
	(0.0397)	(0.0145)	(0.0270)	(0.0033)
Financial constraint	0.407	0.0528	-0.210	-0.0214
	(0.413)	(0.0696)	(0.182)	(0.0403)
Current ratio (slack)	-0.907	-0.0633	-0.985*	0.0296
	(0.685)	(0.277)	(0.511)	(0.0642)
Year FE	Yes	Yes	Yes	Yes
Industry FE	Yes	Yes	Yes	Yes
N	23855	16912	16912	16069
R-squared	0.5578	0.1636	0.1530	Log likelihood: -2305.2122

Standard errors are clustered at the firm-level and reported in parentheses. * p< 0.1; ** p < 0.05; *** p < 0.01. Model (4) is estimated using the probit model.

APPENDIX A: Language Origins and Future-Time Reference (FTR) Values

Country	Language	Genus	FTR	Obs.	Country	Language	Genus	FTR	Obs.
Australia	English	Germanic	Strong	2,877	Mexico	Spanish	Romance	Strong	239
Austria	German	Germanic	Weak	370	Morocco	Arabic	Semitic	Strong	3
Belgium	Flemish/French	Germanic/Roman	Weak/Strong	680	Netherlands	Dutch	Germanic	Weak	1,496
Bermuda Islands	English	Germanic	Strong	283	New Zealand	English	Germanic	Strong	256
Brazil	Portuguese(BR)	Romance	Weak	426	Norway	Norwegian	Germanic	Weak	485
Canada	English/French	Germanic	Strong	3,347	Pakistan	Urdu/English	Indic/Germanic	Strong	4
Cayman Islands	English	Germanic	Strong	101	Papua New Guinea	English	Germanic	Strong	21
Chile	Spanish	Romance	Strong	46	Peru	Spanish	Romance	Strong	1
China	Mandarin	Chinese	Weak	181	Philippines	Tagalog/English	Philippine/ Germanic	Strong	28
Colombia	Spanish	Romance	Strong	3	Poland	Polish	Slavic	Strong	194
Cyprus	Greek/Turkish	Greek/Turkic	Strong	5	Portugal	Portuguese(EU)	Romance	Strong	451
Czech Republic	Czech	Slavic	Strong	124	Puerto Rico	Spanish/English	Romance/Germanic	Strong	32
Denmark	Danish	Germanic	Weak	843	Romania	Romanian	Romance	Strong	23
Egypt	Arabic	Semitic	Strong	17	Russia	Russian	Slavic	Strong	227
Finland	Finnish	Finnic	Weak	927	Singapore	English	Germanic	Strong	740
France	French	Romance	Strong	3,660	South Africa	Afrikaans	Germanic	Strong	167
Germany	German	Germanic	Weak	2,779	Spain	Spanish/Catalan	Romance	Strong	1,610
Greece	Greek	Greek	Strong	554	Sweden	Swedish	Germanic	Weak	1,600
Hong Kong	Cantonese	Chinese	Weak	1,447	Switzerland	French/German/Italian	Romance/Germanic	Strong/Weak	3,184
Hungary	Hungarian	Ugric	Strong	95	Taiwan	Mandarin/Hakka	Chinese	Weak	156
India	Hindi/English	Indic/Germanic	Strong	150	Thailand	Thai	Kam-Tai	Strong	82
Indonesia	Indonesian	Sundic	Weak	34	Turkey	Turkish	Turkic	Strong	109
Ireland	Irish/English	Celtic/Germanic	Strong	892	United Arab Emirates	Arabic	Semitic	Strong	1
Israel	Hebrew/Arabic	Semitic	Strong	78	United Kingdom	English	Germanic	Strong	14,203
Italy	Italian	Romance	Strong	2149	United States	English	Germanic	Strong	31,819
Japan	Japanese	Japanese	Weak	11,270	British Virgin Islands	English	Germanic	Strong	1
Korea, South	Korean	Korean	Strong	466	Guernsey	French/English	Romance/Germanic	Strong	87
Luxembourg	Luxembourgish	Germanic	Weak	145	Gibraltar	English	Germanic	Strong	23
Macao, China	Chinese/Portuguese	Chinese/Romance	Weak	2	Jersey	French/English	Romance/Germanic	Strong	26
Malaysia	Malay	Sundic	Weak	154	**(Total: 59 countries)**				91,373

APPENDIX B: Intangible Value Assessment (IVA) Data Description

IVA Factor	IVA Subscore	weight	Key Metrics
Strategic governance	SG1) Strategy	<2%	Overall governance; rating composed of total scores of non-Key Issues
	SG2) Strategic Capability / Adaptability	<2%	Management of CSR issues, partnership in multi-stakeholder initiatives
	SG3) Traditional Governance Concerns	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
Human capital	HC1) Workplace Practices	<2%	Workforce diversity, policies and programs to promote diversity, work/life benefits, discrimination-related controversies
	HC2) Labor Relations	20%	*KEY ISSUE: Labor Relations* Benefits, strikes, union relations, controversies, risk of work stoppages, etc.
	HC3) Health & Safety	<2%	H&S policies and systems, implementation and monitoring of those systems, performance (injury rate, etc.), safety-related incidents and controversies
Stakeholder capital	SC1) Stakeholder Partnerships	<2%	Customer initiatives, customer-related controversies, firm's support for public policies with noteworthy benefits for stakeholders
	SC2) Local Communities	<2%	Policies, systems and initiatives involving local communities (esp. indigenous peoples), controversies related to firm's interactions with communities
	SC3) Supply Chain	<2%	Policies and systems to protect supply-chain workers' and contractors' rights, initiatives toward improving labor conditions, supply-chain-related controversies
Products and services	PS1) Intellectual Capital/ Product Development	<2%	Beneficial products and services, including efforts that benefit the disadvantaged, reduce consumption of energy and resources, and production of hazardous chemicals; average of two scores
	PS2) Product Safety	<2%	Product quality, health and safety initiatives, controversies related to the quality or safety of a firm's products, including legal cases, recalls, criticism
Emerging markets	EM1) EM Strategy	<2%	Default = 5, unless there is company specific exposure that is highly significant
	EM2) Human Rights/ Child and Forced Labor	<2%	Policies, support for values in Universal Declaration of Human Rights, initiatives to promote human rights, human rights controversies
	EM3) Oppressive regimes	<2%	Controversies, substantive involvement in countries with poor HR records
Environmental risk factors	ER1) Historic Liabilities	<2%	Controversies including natural resource-related cases, widespread or egregious environmental impacts
	ER2) Operating Risk	<2%	Emissions to air, discharges to water, emission of toxic chemicals, nuclear energy, controversies involving non-GHG emissions
	ER3) Leading/ Sustainability Risk Indicators	<2%	Water management and use, use of recycled materials, sourcing, sustainable resource management, climate change policy and transparency, climate change initiatives, absolute and normalized emissions output, controversies

	ER4) Industry Carbon Specific Risk	25%	*KEY ISSUE: Carbon* Targets, emissions intensity relative to peers, estimated cost of compliance
Environmental management capacity	EMC1) Environmental Strategy	<2%	Policies to integrate environmental considerations into all operations, environmental management systems, regulatory compliance, controversies
	EMC2) Corporate Governance	<2%	Board independence, management of CSR issues, board diversity, compensation practices, controversies involving executive compensation and governance.
	EMC3) Environmental Management Systems	<2%	Establishment and monitoring of environmental performance targets, presence of environmental training, stakeholder engagement
	EMC4) Audit	<2%	External independent audits of environmental performance
	EMC5) Environmental Accounting/Reporting	<2%	Reporting frequency, reporting quality
	EMC6) Environmental Training & Development	<2%	Presence of environmental training and communications programs for employees
	EMC7) Certification	<2%	Certifications by ISO or other industry- and country-specific third party auditors
	EMC8) Products/ Materials	<2%	Positive and negative impact of products & services, end-of-life product management, controversies related to environmental impact of P&S.
Environmental opportunity factors	EO1) Strategic Competence	<2%	Policies to integrate environmental considerations into all operations and reduce environmental impact of operations, products & services, environmental management systems, regulatory compliance
	EO2) Environmental Opportunity	35%	*KEY ISSUE: Opportunities in clean technology* Product development in clean technology, R&D relative to sales and trend, innovation capacity
	EO3) Performance	<2%	Percent of revenue represented by identified beneficial products & services

APPENDIX C. Descriptions of Variables

A. Language Structures

Future-Time Reference (FTR)	FTR is a dummy variable which equals 1 if the language is a strong-FTR language, and equals 0 if is it a weak-FTR language. For a complete classification of the languages in our sample, see Appendix A. Data on FTR are from Dahl (2000) and Chen (2013).
Verb Ratio	Calculated as the number of verbs which are grammatically future-marked, divided by the total number of future-referring verbs. In other words, in online weather forecasts in a language, what share of verbs about future weather are marked as future-referring? The data are obtained from Chen (2013).
Sentence Ratio	Similar to the Verb Ratio, the Sentence Ratio is calculated as the proportion of sentences regarding the future which contains a grammatical future-marker. In other words, what share of sentences regarding future weather contain a grammatical future marker? The data are obtained from Chen (2013).

B. Economic Development

Rule of Law	To control for the potential institutional channels that can influence CSR, we control for Rule of Law (as a proxy for legal origins because legal origins are highly correlated with languages due to the history of colonization [La Porta et al., 1998]). The data on *Rule of Law* are obtained from World Bank's World Development Research database.
Legal Origin	The legal origin of the company law or commercial code of each country in which the focal firm is headquartered. This dummy variable equals one if the country's legal origin is the English common law, and zero otherwise. Data on legal origins are from La Porta et al. (1998).
GDP Per Capita	To control for the national wealth and income effects on CSR, we include the logarithm of GDP per capita of the country. The data on GDP per capita are obtained from the World Bank.
Globalization Index	To control for the spillover and convergence of international CSR standards across countries, as well as how open the domestic environment in which the firm operates is, we include the KOF Index of Globalization obtained from ETH Zurich. The KOF Index of Globalization measures three main dimensions of globalization: economic, social, and political. In addition to these three dimensions, the overall index is calculated by referring to (1) actual economic flows, (2) economic restrictions, (3) data on information flows, (4) data on personal contact, and (5) data on cultural proximity.

C. Firm Structure and Performance

% Foreign Assets/Total Assets *(Degree of Internationalization)*	Similar to the positive effects of globalization at the country-level, the degree of internationalization at the firm-level can also serve as a moderator variable. Following Carpenter, Sanders, & Gregersen (2001), we measure the degree of internationalization as the ratio of a company's foreign assets (reflecting foreign productions) to its total assets. The asset dimension addresses a firm's dependence on foreign consumer markets and productive resources. Data on the firm-level degree of internationalization are from Worldscope (accessed via Datastream).
Largest Shareholders' Ownership	To control for the impact of the shareholders (the shareholder-stakeholder trade off in corporate decision making), we include the most recent percentage ownership of the company's largest shareholders. Data on this variable are from Orbis database.
Tobin's Q	To control for the financial performance of the firm, which has been shown to affect CSR levels (Margolis, Elfenbein, & Walsh, 2007), we include Tobin's Q as a market-based performance indicator in the regressions. We measure Tobin's Q as the ratio of a firm's market capitalization to its book value of equity, and obtain the data from Datastream.
Return on Assets (ROA)	To control for the operational performance of the firm, which has been shown to affect CSR levels (Margolis, Elfenbein, & Walsh, 2007), we further include ROA as an accounting-based performance indicator in the regressions. We measure ROA as the ratio of a firm's net income to its total book value of assets, and obtain the data from Compustat.

	D. CEO Background
CEO Gender	To control for the gender effect of top executives on CSR as documented in some studies (e.g., Marquis & Lee, 2013), we include a dummy variable CEO gender, which equals one if the CEO of the company is male, and equals zero if the CEO is female. The data on CEO gender are manually collected across companies and years from BoardEx.
CEO International Work Experience	To control for the potential effect of CEO's international exposure and global mindset on CSR, we include a dummy variable CEO international work experience, which equals one if the CEO of the company worked in a country other than the current company's nationality, and equals zero otherwise. The data on CEO international work experience are manually obtained from BoardEx.
CEO Overseas Education Experience	Similar to CEO international work experience, we further obtain a dummy variable CEO overseas education, which equals one if the CEO obtained educational degrees overseas, and zero otherwise. This variable further controls for the potential effect of top executives' global mindset on CSR performance. The data on CEO overseas education are manually collected from BoardEx.
	E. Cultural Dimensions
Cultural Controls (Hofstede Dimensions)	The Hofstede Cultural Dimensions describe the effects of a society's culture on the values of its members, and how these values relate to behavior, using a structure derived from factor analysis. Five dimensions are included: (1) Power distance, which addresses how a society handles inequalities (hierarchical orders) among people; (2) Individualism (as opposed to collectivism), which is defined as a preference for a loosely-knit social framework in which individuals are expected to take care of only themselves and their immediate families; (3) Masculinity vs. femininity, which represents a preference in society for achievement, heroism, assertiveness and material rewards for success (masculinity), versus a preference for cooperation, modesty, caring for the weak and quality of life (femininity); (4) Uncertainty avoidance, which expresses the degree to which the members of a society feel uncomfortable with uncertainty and ambiguity; (5) Pragmatism, which represents a preference of encouraging thrift and efforts in modern education versus the preference of maintaining time-honoured tradition and norms while viewing societal change with suspicion. A higher score on a dimension indicates a higher level of the aforementioned cultural tendency.
Catholic/Protestant	To control for the impact of religion on CSR, we include the ratio of the percentage of Catholic population and the percentage of the Protestant population in the country in the subsample of Christianity-majority countries. Data on this variable are from the Global Religious Landscape Report and the International Religious Freedom Report.
	F. Controls and Other Variables
Interest Coverage	Measured by the ratio of Earnings Before Interests and Taxes (EBIT) to interest expenses. Data on interest coverage are from Compustat.
Financial Constraints	Measured by the ratio of the change in short-term investment to the change in operational cash flow. Data on financial constraints are from Compustat.
Slacks (Current Ratio)	Measured by the ratio of current debts to current assets. Data on slacks (current ratio) are from Compustat.
R&D Expenditures/Assets	Research and development expenses that represent all direct and indirect costs related to the creation and development of new processes, techniques, applications and products with commercial possibilities. Data on R&D expenditures are from Datastream.
Environmental R&D Expenditure	Total amount of environmental R&D costs (without clean up and remediation costs) divided by net sales or revenue in US dollars. Data on environmental R&D expenditure are from the Product Innovation category of ASSET4 database (Datastream)
Environmental R&D Score	Does the company invest in R&D on new environmentally friendly products or services that will limit the amount of emissions and resources needed during product use? (Score from 0 to 100). Data on this item are from the Product Innovation category of ASSET4 database (Datastream)
Environmental R&D Dummy	A dummy variable indicating whether the company invests in R&D on new environmentally friendly products or services that will limit the amount of emissions and resources needed during product use? Data on this item are from the Product Innovation category of ASSET4 database (Datastream)

Chapter 5. The Political Determinants of Executive Compensation: Evidence from an Emerging Economy

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ABSTRACT

In regulated economies, corporate governance mechanisms such as executive compensation are less driven by market-based forces but more subject to political influence. We study the political determinants of executive compensation for all listed Chinese firms in the context of an exogenous shock that removed market frictions in share-tradability. Under strong political constraints, state ownership reduced the managerial pay levels and increased pay-for-performance sensitivity (to asset-based benchmarks). Board independence and compensation committees do not curb managerial pay, and market-based factors do not have a significant influence. However, these effects reversed following the governance shock (removal of market frictions in share tradability).

Keywords: Executive compensation, political economy, state ownership, market friction

JEL Code: G34, H70, M12, P26, P31

* We thank Lucian Bebchuk, Thorsten Beck, Fabio Braggion, Jerry Cao, Marco Da Rin, Joost Driessen, Olivier de Jonghe, Michael Firth, Wayne Guay, Chris Marquis, Dwight Perkins, Bing Ren, Oliver Spalt, Dylan Sutherland, Charles Wang, Yuhai Xuan, and seminar and conference participants at Harvard Kennedy School, Harvard Business School, Harvard Law School, London School of Economics, Copenhagen Business School, CESifo Venice Summer Institute, Asian Finance Association Conference, First MIT-Asia Accounting Conference, Peking University, Nankai University, and Tilburg University for their valuable comments. We are also grateful to Yan Wang, Ying Zheng, Haoyu Wu, and Haikun Zhu for the excellent research assistant work.

Introduction

In competitive markets, the decision on how to compensate managers is believed to be molded by market forces, such as the labor market for talent (Gabaix & Landier, 2008), the market for corporate control (Grinstein & Hribar, 2004), institutional investors' monitoring (Hartzell & Starks, 2003), and the structure of the board of directors (Chhaochharia & Grinstein, 2009). Still, executive compensation not curbed by any internal or external corporate governance mechanisms could be excessive due to unrestrained managerial power (Bebchuk & Fried, 2003) or pure luck (Bertrand & Mullaninathan, 2001).In some countries, markets and industries are highly regulated and subject to political intervention, which can distort the incentives of managers and consequently affect compensation contracting (Joskow, Rose, & Wolfram, 1996). In this context, one may think about emerging markets such as China where the Party school system not only trains future politicians and top military but also selected business men (Shambaugh, 2008), whose ideological faithfulness to the Party line may guarantee them a career in both state-owned and public firms. Even in western countries, such as France, political connections and old boys' networks (e.g. les 'Enarques') affect the appointment and remuneration of top managers, especially in firms in which the state holds an equity stake (Bertrand et al., 2008).

Market frictions such as political intervention have challenged standard economic theories on executive compensation policies (Groves et al., 1994; Cao et al., 2011; Chen, Lin, Lu & Zhang, 2014). The managerial recruitment and remuneration may not only be influenced directly by politics but many of a firm's corporate governance practices—of which top managerial compensation policy is only one—are determined by the political environment (e.g., Roe, 1999; Pagano & Volpin, 2005). A study of the political determinants of executive compensation reflects the classical dichotomy of who can/should monitor, regulate, and incentivize the manager: whether it is the state or the market (Shleifer. 1998). Along these lines, Joskow, Rose, & Wolfram (1996) were among the first to study empirically the political context of executive compensation. They investigated the strongly regulated U.S. electric utility industry and found that non-market political constraints significantly influence the compensation policies of top executives. However, U.S. firms may currently not be the best sample to study the political determinants of executive compensation, as this market is among the most competitive in the world and the direct involvement of the state in business is rare.

One of the most prominent features of political involvement is the presence of the government as a controlling corporate shareholder, yet its impact on executive compensation has not been adequately addressed. The extant literature on executive compensation usually resorts to

managerial agency theory, which addresses the conflicts between powerful managers and weak shareholders in widely-held Anglo-American corporations (Jensen & Meckling, 1976; Jensen & Murphy, 1990; Garen, 1994). Relatively little is known about executive compensation under the alternative agency model, usually referred to as the controlling shareholder agency model, which concerns the conflicts between minority and controlling shareholders and often dominates the classic shareholder-manager opposition (Bebchuk & Weisbach, 2010). In most economies around the world, controlling shareholders are usually wealthy families and the state (La Porta, Lopez-de-Silanes, and Shleifer, 1999). In family firms, ownership and control are usually not separated and managers often have blood kinship with the controlling families, which largely eliminates the managerial agency problem. In contrast, in state-owned enterprises[45] (SOEs), a so-called "twin-agency" problem (Stulz, 2004) may arise: the first is the agency problem between the manager and the state as a controlling shareholder, the other is the agency problem between the state and the public citizens, because the state as a controlling shareholder may have different goals than other types of shareholders. Such new forms of agency conflicts that arise from the state's power to control the creation of corporations or expropriate existing enterprises, Hilt (2014) argues, has also been a central concern at the dawn of the U.S. Corporation. Consequently, both types of agency problems (major vs minority shareholders, and management vs shareholders) can occur in SOEs, and executive compensation may be subject to political constraints exerted by the state. *How the presence of the state as a controlling shareholder and as an important political constraint affects executive compensation* is the central question of this study.

Economists typically resort to two broad theories to explain executive compensation policies under the managerial agency model in Anglo-American companies (without a controlling shareholder). The o*ptimal contracting theory* views managerial pay as a remedy against agency problems induced by diverging objectives of management and shareholders, and it is the board of directors' task to design compensation schemes that provide the managers with appropriate incentives to maximize shareholder value (Murphy, 1999; Core et al., 1999). The *managerial power theory*, in contrast, regards managerial pay as part of the agency problem itself, because some features of pay arrangements seem to reflect managerial rent-seeking rather than the provision of efficient incentives (Bertrand & Mullainathan, 2001; Bebchuk & Fried, 2003, 2004). Still, these two theories may not apply to companies with a controlling shareholder, especially when the controlling shareholder is the state, because value maximization may only be of secondary importance and managerial power and entrenchment may be limited. The main shareholder, in

[45] For simplicity, we use "state-owned enterprises (SOEs)" to denote both firms that are owned by the state, and firms that are controlled (through minority shareholding) by the state throughout this paper.

this case the state, can impose a specific remuneration contract and thus set the level of pay and the pay-for-performance sensitivity. In addition, the state may impose specific performance benchmarks that direct corporate decision making towards the state's political objectives. For example, it may care less about market returns for shareholders but more about the asset returns, thus tying managerial compensation to asset-based performance benchmarks rather than to equity-based ones.

In this study, we explore an exogenous policy regime change (removal of market frictions) in a highly regulated economy to test the impact of political determinants on executive compensation in the presence of the state as a controlling shareholder. We investigate the political determinants of executive compensation through the evolution of several governance-related mechanisms before and after the structural regulatory change. These mechanisms include: (1) ownership and control by the state, (2) performance benchmarks, (3) board independence, (4) board committees, and (5) market-orientation and distance from state influence (from the political center). To do so, we analyze a hand-collected extensive sample of all non-financial Chinese firms' ownership structures, board structures, and managerial backgrounds over an 11 year period. China, as the world's largest emerging economy with a pervasive presence of state-owned firms and an ongoing structural change towards a market economy, offers us a fertile empirical context to test alternative agency models. The split-share structural reform was launched in the middle of our sample period[46]: This reform converted state-owned non-tradable shares into tradable shares, which brought about a significant attenuation of political constraints and market frictions (Chen et al., 2012; Chen et al., 2014). Following this reform of ownership regulation, several other aspects of corporate governance also underwent dramatic changes, which can partially explain the state's grip over managerial compensation. For example, the state changed from a majority shareholder into a minority one, and the state-manager relationship changed from being strongly aligned to more arm's length. Consequently, Chinese SOEs' objectives (and hence the managerial incentives) may have changed due to the metamorphosis from a government-led regime towards a more market-oriented one, and the agency conflicts may have changed from those between the state and minority shareholders to those between the manager and minority shareholders. The corporate

[46] In April 2005 (effective from 2006), the Chinese government initiated the split-share structure reform of turning non-tradable shares into tradable ones (called the 'share issue privatization') for all listed domestic firms. More than 1,400 listed companies could "gradually" convert their tradable shares. To make the non-tradable shares tradable, the holders of non-tradable shares compensated holders of tradable shares in each individual firm with approximately three shares per 10 shares on average, which boiled down to a dilution of the share stakes of the owners of formerly untradeable shares (Li et al., 2011). All Chinese listed companies completed their negotiations by the end of 2008, and all of their restricted shares became fully tradable by the end of 2011.

governance model, investors' control rights, manager's incentive structures, and the firm's performance benchmarks have all experienced significant transitions. These transitions closely map the mechanisms of political influence outlined before, and are summarized in Table 1.

[Insert Table 1 about here]

To make better sense of how corporate governance mechanisms in a political interventionist economy function, we conceptually illustrate the corporate governance structure of a typical Chinese SOE in Figure 1. Such a firm is led by both a board of directors and a supervisory board, though the latter board has been widely criticized for not being functional. Sitting on the board of directors are both executive and non-executive directors, and the latter type comprises both independent (or outside) directors and non-independent ones. Such mixed board structure implies that firms are likely to adopt a dual corporate governance model: on one hand, a firm is subject to standard market-based governance mechanisms such as the inclusion of outside independent directors, but on the other, it is required to conform to the political objectives formulated by the government. What is specific for Chinese SOEs is the existence of a corporate Party committee in parallel to the board; this committee is directly led by the Organization Department of the Chinese Communist Party (CCP). However, the role of CCP in Chinese companies is mainly to ensure the political loyalty of the executives through e.g. appointing personnel, rather than to influence their compensation.

[Insert Figure 1 about here]

Some may worry that the use of non-cash compensation (stock options and restricted stock) is rare in Chinese firms and perquisite consumption more prevalent (Adithipyangkul, Alon, & Zhang, 2009). However, we argue that this is not likely to be a major concern for our study. First, equity compensation in state-owned firms is neither common in most emerging countries nor in the developing ones (with exception of the largest listed firms) (Gallego & Larrain, 2012). This validates the representativeness of our Chinese sample for those economies with pervasive presence of state intervention and regulations. Still, we do control for option grants in our empirical models. Second, although part of the monetary benefits of Chinese executives may consist of grey income including perquisites, which occurs around the world and even in the U.S. (according to Bebchuk & Fried, 2003), the focus of this study is not on grey income but rather on how executive compensation is *formally* contracted by political forces in regulated economies and industries. Thus, the use of registered pay in our context does not really suffer from a biased variable problem. Nevertheless, we try to control in our models for the extent to which rent-

seeking opportunities exist, thus partially analyzing the potential effect of the existence of grey income on formal compensation.

We find strong evidence that the state and the market are alternative mechanisms governing executive compensation. First, state ownership was negatively related to (or "constraining") the level of managerial pay before the split-share structure reform, but such correlation became insignificant after the reform. Second, prior to the reform, state ownership was strongly positively associated with accounting-based pay-for-performance sensitivity. After the reform, the accounting-based pay-for-performance became weaker, while the market-based pay grew in importance as is common in a more market-based system. Third, before the reform, the compensation level was not influenced by the presence of independent directors, but positively related to the distance between the firm's headquarter city and the center of political power, Beijing. After the reform, the independent director ratio is associated with lower compensation, and distance to Beijing become insignificant.

This research makes the following contributions. First, we extend the scope of analysis of executive compensation by studying its political determinants as an alternative mechanism to market forces. While the dichotomy of the roles of the state and of the market in governing economic activities has been fiercely debated in the literature (e.g., Lange, 1936; Shleifer, 1998; Megginson & Netter, 2001), little is known about this tradeoff in terms of incentivizing top executives. As we show, a major political determinant of executive compensation is, besides the regulatory regime, the ownership stake held by the state. The state's holding is related to the performance benchmarks imposed on the management, which is different from the usual benchmarks chosen by other types of shareholders to incentivize the managers. Second, we extend the literature on the influence of controlling shareholders on executive compensation. We argue that while the state can act as a controlling shareholder, its objectives and monitoring intensity are very difficult from other types of controlling shareholders. Although some recent studies (Chen, Lin, Lu, & Zhang (2014) and (Hou, Lee, Stathopoulos, & Tong, (2013)) examine Chinese CEOs' pay-for-performance, we reach different results for our more comprehensive sample, mainly because we do specifically model the political constraints, whereas other studies on Chinese executive compensation rely on corporate governance frameworks valid for firms in western economies and ignore political intervention. While these studies find that, in general, executive pay-for-performance was strengthened after the split share reform, we disentangle different performance benchmarks and find that the pay-for-performance sensitivity depends on which benchmark was preferred by the state. In addition, these studies largely ignore the mechanisms of state influence on executive compensation through aspects other than ownership and control

arrangements; namely, board independence, tunneling opportunities, the presence of a compensation committee, and distance from the political center. We offer a more holistic view on how the state is able to influence executive compensation through various mechanisms. Our results are also very different from those in studies investigating the relations between executive compensation and other (non-state) controlling shareholders (e.g., Gomez-Mejia, Larraza-Kintana, & Makri, 2003), which reinforces our argument that "who actually owns the firm" matters for setting executive compensation. Third, we extend the literature on the effects of economy-wide structural reforms on corporate governance. Our findings complement the results in Li, Wang, Cheung, & Jiang (2011), Chen et al. (2012), and Chen et al. (2014) who also use the split-share structural reform as a quasi-experiment (removal of a market friction and improved stock liquidity) to explore the changes in risk-sharing and cash holdings. While their center of attention is on better interest alignment between managers and shareholders, and between controlling shareholders and minority shareholders, our study offers a new perspective on the ownership-based reform. The reason is that this reform did not only remove market frictions but also led to a regime shift from an administration-oriented governance model to more market-based governance, which may have implications for corporate efficiency and value, and for welfare. However, instead of treating the split-share reform as a clear-cut "shock", we recognize its "transitional" feature and analyze how different mechanisms influencing compensation contracting evolve over the transition period. Our study also complements the studies by Wang & Xiao (2011) and Gao & Li (2014) which use the Chinese setting to investigate the relationship between large shareholders and managerial pay-for-performance sensitivity. Our political framework further explores the particularity of the effects of the state as a controlling shareholder (in relation to other types of controlling shareholders [Hartzell & Starks, 2003]) on corporate governance.

Data and Methodology

Data

Our sample consists of the firms listed on the Shanghai and Shenzhen Exchanges.[47] We collected data on firms' financial structure, operational performance, and corporate governance from the WIND database, the China Stock Market and Accounting Research (CSMAR) database, and Peking University's China Center for Economic Research (CCER) database, which comprise all

[47] We excluded Chinese firms listed in Hong Kong or abroad, as they operate in a different institutional environment and are subject to different regulations.

A-share companies[48] listed on the above exchanges since 1990. In addition, we manually gathered the data capturing CEOs' characteristics and backgrounds from their curricula published in these databases and we cross-validated the personal backgrounds (through a labour-intensive process) by means of the annual reports. The dataset consists of 17,272 firm-year observations covering more than 92% of all the listed firms in mainland China over the period 2001 to 2011. We excluded financial and insurance companies as well and the firms labelled by the stock exchanges as "Special Treatment". The latter are firms in financial distress or experiencing negative financial irregularities (e.g., negative net earnings for two consecutive years) as defined by the China Securities Regulatory Commission (CSRC). We followed the Industry Classification Guide of Listed Companies issued by the CSRC in April 2001 to allocate our sample firms to 21 industries.

Methodology

To capture the evolution of the executive compensation policies before and after the corporate governance reform, we partition our sample into pre-reform and the post-reform subsamples. We estimate the determinants of managerial pay using both random-effects and fixed-effects models. The dependent variable is top managerial pay, which, following the extant literature, is defined as the logarithm of the total compensation of the top three highest-paid managers, as there is no transparency requirement at the individual manager or director level (Chen, Ezzamel, & Cai, 2011).

Our main political variables are: (1) State Direct Ownership, the shares directly held by the State, (2) State Ultimate Control, a dummy variable indicating whether the ultimate controller of the firm is the state, and (3) Distance to Beijing , the logarithm of the distance (in kilometers) from the firm's headquarter city to the Chinese capital, the political decision center . In robustness tests, we also include: (4) the CEO's Political Experience, which captures managerial political power and is based on the manager's political background—work experience in the government or military, or membership of the Chinese congress (Faccio, 2006; Fan, Wong, & Zhang, 2007); and (5) Board Political Connections, which measures the proportion of directors on the board with political connections and past work experience in the government, military, or who are members of the Chinese Congress. Precise definitions of the above variables and control variables are presented in Table 2.

[Insert Table 2 about here]

[48] A-shares are stocks valued in RMB and available only to Chinese citizens; B-shares are also denominated in RMB, but traded in foreign currencies such as the U.S. dollar or Hong Kong dollar.

Other explanatory variables include (i) firm performance, proxied by Tobin's Q (equity market-to-book ratio) and return on assets (ROA); (ii) board structure variables which include the ratio of independent directors over the whole board, the existence of a compensation committee, the size of the board and of the top management team; managerial background information, such as managers' education (degrees), overseas education, and international work experience; (iii) the managers' background such as specializations and past work experience in the technology industry, accounting firms, or the financial industry; (iv) and macro-economic factors proxied by the provincial-level market-orientation index from Fan, Wang, & Zhu (2011). Furthermore, we control for firm size and leverage, as well as province-, industry- and year- fixed effects. We cluster standard errors at the firm level to further adjust for possible correlations of unobserved characteristics across firms. Table 3 exhibits the summary statistics of these variables.[49]

We controlled for the extent of gray income and tunneling activities by using the logarithm of other receivables, (Ln(Other Receivables)), on the balance sheet, as suggested by Jiang et al. (2010). They document that during the period 1996-2006, the management siphoned tens of billions of RMB from listed firms by means of inter-corporate loans to blockholders. Information on such inter-corporate loans is publically available but the loans do not require a 'fair value' test. Furthermore, these loans were not made as part of the firms' normal course of business, they did not even accrue interest, and even when some interest was accrued, neither the interest nor the principal were typically ever paid back. Jiang *et al.* (2010) argue that China is an environment highly conducive to tunneling behavior.[50] They also show that this practice was not uncommon, and more so in local-government controlled firms than for firms controlled by the central-government. Inter-corporate loans were booked as 'other receivables' on the balance sheet. The lack of clout of the market regulators caused the tunneling practices to persist in spite of the security regulations issued between 2001 and 2006. In 2006, eight government ministries threatened public disclosure and personal action against top management in order to stop the abuse. This entry is expected to capture the extent to which executives can be compensated through non-cash registered pay (Johnson et al., 2000). The summary statistics of the above variables are reported in Table 3.

[Insert Table 3 about here]

[49] A correlation check indicated that there is no multicollinearity problem for these variables.
[50] Jiang et al (2010) give the following reasons: (i) all Chinese listed firms have a dominant/controlling shareholder; (ii) prior to 2006, the trading of controlling shares was restricted, thus limiting the ownership benefits of price appreciation to the controlling shareholder, and increasing her incentive to obtain benefits through other channels; (iii) the legal system offers few options for minority shareholders to take private enforcement action against blockholder misconduct; (iv) public enforcement, including fines and prison terms for tunneling, has been hampered by the limited authority of security market regulators.

La Porta et al. (2002) argue that ownership patterns are very stable, especially outside the United States, and are largely shaped by the histories of the companies. This is especially the case for SOEs, as government ownership resulting from privatization or green-field investments are usually caused by top-down reform rather than by corporate choices. Similar arguments apply to board structures and managerial backgrounds, as the managers and directors in SOEs are usually directly appointed by the government, rather than picked by the shareholders meeting. The major endogeneity concern may be that executive pay and firm performance mutually affect each other through both reward and motivation (Buck, Liu, & Skovoroda, 2008). Nevertheless, we tried to address the potential endogeneity issue for all variables by applying the Arellano-Bond linear estimation methods in a dynamic panel data framework, which uses the lagged values and changes of both the dependent variable and independent variables as instruments.

Results

The average state ownership in the top five industries (by market capitalization) was high in the beginning last decade —almost 50% in the petrochemical, metal & non-metal industries , and even in the information technology (IT) industry the average stake was almost 30% (Figure 2a). Gradually, state ownership declined over the subsequent decade to less than 10%. Given that the split-share reform was not a sudden policy shock, we will not implement a difference-in-difference approach but rather perform a split-sample analysis. In contrast, the average managerial compensation had gradually increased over the sample period, and Figure 2b depicts a significant raise around the period of reform (2005–2007).

[Figure 2a—2b]

The Political Determinants of Compensation and Pay-Performance Sensitivity

To test the tradeoff between political and market forces, we focus on variables that measure government ownership and control (State ownership and State Ultimate Control), firm performance (ROA and Tobin's Q), board structures (Independent Director Ratio, Compensation Committee, Managerial Duality, etc.), and the firm's geographical distance to the capital (Distance to Beijing). Our random-effects GLS regressions are estimated both for the sample that includes the whole period (2001-2011, with 2006 being the cutoff) and the sample that excludes transition period (we thus exclude the years 2005-2007, and take 2001-2004 as the pre-reform period and 2008-2011 as the post-reform period). Models (1)-(4) of Table 4 show the determinants of the level of managerial pay whereas the pay-for-performance sensitivity models (5)-(8) include the variable State Ownership and its interactions with performance.

Several interesting results emerge. First, in the pre-reform sample (models (1) and (2)), the coefficient on State Ownership is negative and statistically significant at 1% level. Its economic significance is also non-trivial: a ten-percent increase of State Ownership leads to 6.9 percent decrease in nominal compensation, which suggests that state ownership functions as an important constraint to executive compensation, at least in the pre-reform period (models (1)-(2) and (5)-(6)). However, the results from the post-reform period (Models (3)-(4) and Models (7)-(8)) suggest that the state does not influence executive compensation. In the pre-reform period, the coefficient on ROA is positive and statistically significant (models (1), (2), (5), and (6)), the one Tobin's Q is, though positive, not statistically significant. This implies that managerial pay is tied to accounting-based performance, and not to market-based performance (although the financial market was already reasonably well developed in the period 2001-2006). In the past-reform period when the corporate governance system emphasized more and more a market-based capitalism, not only accounting performance mattered for compensation but also Tobin's Q (models (3), (4), (7), and (8)). This may suggest that the state gradually conferred its control and monitoring role to the market, and that managers are more likely to be compensated for increasing market value (while the accounting-based performance benchmark still remains an important benchmark). The fact that in the pre-reform period, the state was attaching more importance to accounting performance than in the post-reform period can be derived from the coefficients of the interaction term State Ownership × ROA which are positive and statistically significant at the 1% level (model (5) and (6) and not or marginally significant in models (7) and (8)). These results seem to suggest that state ownership has played a monitoring role in constraining the level of managerial pay and strengthening pay-for-accounting performance sensitivity before 2006, which is consistent with the roles of institutional investors as in Hartzell & Starks (2003). One may argue that the diminishing effects of state ownership in the post-reform sample may be simply due to the fact that the state's equity stakes became too small to affect corporate remuneration policies. However, this is not likely the case, because, although the reform significantly reduced the percentage of shares owned by the state (Figure 1a), state ownership still remained present in most firms at a level that is comparable to the typical institutional ownership stake in U.S. firms. In later analyses, we replace State Ownership by State Ultimate Control (which implies that the state still preserved absolute control over the firm after the reform), and we obtain similar results.

In Table 4, Other Receivables is negatively associated with compensation level (models (1) and (2)). Jiang et al. (2010) suggest that high other receivables represent inter-company loans to firms of controlling shareholders (which could even be the state). As the use of this type of loans has been shown to enable tunneling, the negative coefficient can be interpreted as state tunneling

of corporate assets which further constrains managerial compensation. This implies that managerial pay is low when controlling shareholders' tunneling opportunities are high; in the specifications with interaction terms, the relation remains negative but become statistically insignificant. In the post-reform period, the significance of tunneling completely disappears, which implies that the government crackdown on this type of self-dealing has been successful (and/or that other channels have been found for tunneling). These results are salient given that we have already controlled for ownership concentration which to some extent captures the argument that blockholders can 'bribe' managers. In addition, the coefficient on Independent Director Ratio is not statistically significant in the pre-reform sample, indicating that outside directors do not affect managerial pay, which is consistent with the view that outside (independent) directors are "vase directors" with no real role or impact. However, in the post-reform sample, this coefficient becomes negative and statistically significant, which may signify that these outside directors, now operating in a market-based governance context, do play a monitoring role in constraining executive compensation. The coefficient on Managerial Duality is not statistically significant in the pre-reform sample, but becomes positively significant in the post-reform sample and thus implies that the managerial agency problem is more severe in more market-oriented environment, as a more powerful manager can influence (and raise) her own pay. While we control for corporate size, we find that firms with a larger top management team and a compensation committee, remunerate top management better. The latter effect is in line with the findings by Markoczy et al. (2013) who state that Chinese firms set up compensation committees as a symbolic management tool to create the appearance of legitimacy for high managerial compensation. When the general manager also assumes the responsibility of the chairman, his total remuneration is higher. Moreover, the degree to which a province's economy and legal system is market-based (as proxied by the Market-Orientation Index developed by Fan, Want and Zhu (2011)) does not influence the level of managerial compensation. The coefficient of the Distance to Beijing, the political epicenter, indicates that the further away the company's headquarter city is from the capital, the higher the managers get paid, even after controlling for province-fixed effects (models (1), (2), (5) and (6). Put differently, closeness to the political center constrains executive pay, but this was only the case in the pre-reform period. Subsequently, when the market friction (political constraint) is removed, it appears that connections to political resources become less important in terms of constraining managerial pay. Ownership concentration (of the largest five blockholders) is positively related to on managerial pay, but only in the pre-reform period.

All in all, the results from the pre-reform sample seem to imply that political factors, rather than market factors (such as independent directors, market-based performance, and local market-

orientation), affected corporate remuneration policies. As the split-share reform removed market frictions, the impact of political factors diminished and the effects of market factors became stronger.

[Insert Table 4 about here]

To check the robustness of the above results, we replace the continuous variable State Ownership by a dummy variable State Ultimate Control which indicates whether the ultimate controller is the state, and interact State Ultimate Control with ROA and Tobin's Q, respectively. As most of the previous results on control variables are upheld, we do not report them in Table 5 for reasons of conciseness. In the pre-reform sample (including the transition period), the coefficient on State Control×ROA is positive and statistically significant at 5% level while the coefficient on State control is significantly negative and that on ROA is significantly positive (Model (1)). This again indicates that the state monitors the manager and moderates managerial pay-for-performance sensitivity according to accounting-based performance benchmark. In the post-reform sample, the coefficient on interaction remains to be statistically significant (though the economic significance is reduced by about half), and the main effect of State Control becomes insignificant whereas those of both ROA and Tobin's Q are both significant at the 1% level (Model (2)).

When Tobin's Q is interacted with the State control dummy (Models (3)-(4)), different results are unveiled. In the pre-reform period, the coefficient on "State Control × Q" is negative and significant at the 10% level (Model (3)), indicating that state control negatively moderated market-based pay-for-performance. Interestingly, the coefficient of this interaction term becomes positive and significant in the post-reform period (Model (4)). This suggests that state control even strengthened market-based pay-for-performance sensitivity after the reform. These results suggest that the performance targets for compensating managers *by the state* had shifted following the structural reform. Before the reform, managerial pay was benchmarked on accounting-based performance while market-based performance was even discouraged. Since the reform, managerial pay is strongly tied to market-based performance, while accounting-based performance still remains to be an important benchmark. These results on the effects of state ownership and state ultimate control are also in line with both the literature on "ownership concentration matters" (e.g., Demsetz & Villalonga, 2001) and that on "ownership identity matters" (e.g., La Porta et al., 1999; Faccio & Lang, 2002).

[Insert Table 5 about here]

Dynamic Panel Data Estimation

We then turn to the Arellano-Bond dynamic panel data estimations to address potential endogeneity issues. For all included variables, the GMM-in-systems takes their lagged levels and lagged changes as instruments. To preserve space, we report in Table 6 only the test results on samples excluding the transition period (years 2005-2007). First, compensation is positively, significantly correlated with the previous year's compensation, indicating a strong path-dependence in the setting of top managerial compensation. Second, the coefficient on the interaction term State Ownership × ROA is positive and significant at the 10% level in the pre-reform sample, but becomes insignificant in the post-reform sample as shown in Table 4. In contrast, the coefficient on the interaction term State Ownership × Q is not significant in the pre-reform sample, but becomes positive and significant at the 10% level in the post-reform sample, which reinforces our earlier findings. Third, whereas our market-based measure, Tobin's Q, is not significant in the pre-reform period, it is in the post-reform period, which together with the interaction term State Ownership × Q, suggests a shift towards a market-based performance benchmark in compensation contracting. The coefficient on state ownership remains negative, though it is not statistically significant. Larger companies pay more and managerial duality leads to higher compensation but after the reform. Although some caution is warranted with Arellano-Bond GMM estimations in the case of short sample periods, our dynamic panel results are consistent with our earlier findings obtained by means of GLS estimations.

[Insert Table 6 about here]

Board and Managerial Political Connections and Other Backgrounds

We extend the models of Table 6 by relating the top managers' political connections (captured by their past work experience in the government or the military) and human capital (measured by expertise in specific corporate domains) to their compensation, as managerial attributes may also influence how managers are compensated (Graham, Li, & Qiu, 2012). The variable Board Political Connections stands for the percentage of board members with a political background. The results of including this set of individual-level dummy variables capturing managerial backgrounds do not reveal anything exciting (see Table 7). The previous results are mostly upheld despite of the inclusion of a large set of individual-level dummy variables. First, a manager's political background, meaning that he is or was an official in the central government, the local government, or the military, has no impact on his remuneration, neither before or after the reform. This is consistent with the prediction by Bebchuk & Hamdani (2009) that managerial power on executive compensation is less of an issue in firms with a controlling shareholder (the state in our context). Second, work experience in technology, accounting or finance jobs does not seem to play a

significant role, with exception of overseas work experience. Before the reform, academic work experience (Manager Academic Background) was financially rewarded more, but overseas education was not (Table 7). We also find little evidence that the level of education (Managerial Education Degree) affects compensation. Overall, the results from Table 7 imply that top executives' personal backgrounds do not affect their compensation much, at least compared to the influence of state ownership/control. It is important to be cautious with the interpretation of the results about managerial backgrounds because we only measure the characteristics and experience of the top manager (CEO), whereas compensation is the sum of the three highest paid managers, which biases against finding a relation.

[Insert Table 7 about here]

Other Robustness Checks

To test the robustness of our results, we conduct some more empirical tests with different specifications. As alternative estimation methods, we took a one-year lead of the dependent variable, and estimated pooled OLS models, pure random-effect models (without controlling for year, industry, and province effects), and firm-fixed effect models. For conciseness, we only report the results from the sample that excludes the transition period. As shown in Table 8, most of our previous results still hold: In the pre-reform period, state ownership is negatively correlated with the level of pay, while the coefficients on the interaction between State ownership and ROA are mostly positive. This effect largely disappears in the post-reform period which captures the transition towards a more market-based economy and corporate governance regime. In addition, the coefficient on ROA is mostly positive and statistically significant both before and after the reform, but the ones on Tobin's Q show that this market-based performance variable only leads to higher pay in the post-reform period, as anticipated. The independent director ratio is positively associated with compensation in the pre-reform period, and so is the existence of the compensation committee, but after the reform neither the percentage of independent directors nor the presence of a compensation committee leads to higher compensation. The results on our other variables are consistent with previous findings. Overall, these additional robustness checks confirm that political forces, especially the state ownership and control exerts a strong influence on the formal contracting of executive compensation in China, the level of which is difficult to explained by means of traditional market-based corporate governance theories. However, once the regulatory friction were being removed (since 2006), market forces began to play their role.

[Insert Table 8 about here]

Alternative Explanations

Cultures and norms

One potential alternative explanation is that the compensation phenomenon is related to the unique Chinese cultural and social norms, which would limit the generalizability of our political economy view. One may argue that the prevailing social norms in China prevent executives from being paid excessively more than other employees, especially for the managers from state-owned firms, which, historically, have carried the belief system that all employees should be equal. To address this concern, we compare our empirical results with other single- and cross-country studies where the counterfactual was provided by CEOs in firms (including those that were state-owned) from Hong Kong, Singapore, and Taiwan, which share a similar Chinese culture, but have been under different political regimes (e.g., Cheung et al., 2005; Sun et al., 2010). These studies document strong pay-performance sensitivity and the monitoring of controlling shareholders that are largely consistent with the literature on western corporate governance. Moreover, in many transitional economies such as those in Eastern Europe that were under autocratic political regimes similar to the one in China, executive compensation was not tied to profitability, but rather to one's political connections before crucial institutional reforms (e.g., Jones & Kato, 1996; Eriksson, 2005). These studies confirm that the executive compensation patterns in China and other emerging economies under strong state involvement were a direct result of political institutions, rather than cultures and social norms.

Confounding effects

A potential alternative explanation on the dynamics of executive compensation is that non-political factors, such as concurrent labor law reforms or entrepreneurial activities in China during the same periods, may stimulate labor market flows and demand for executives (Groves et al., 1995; Xu, 2011), which are then not induced by the fact that the government loosens its control over SOEs. However, this conjecture can only explain the evolution of pay-performance sensitivity over time, but not the interaction effect of state ownership/control with firm performance. If pay-for-performance were mainly driven by labor law reforms and labor market flow rather than political factors, then state ownership would not have played any significant role. The fact that most managerial ability measures do not have significant coefficients (see Table 7) also fails to support this concurrent labor reform conjecture.

Some other minor concerns regarding our specific test results may emerge. For example, an alternative explanation on the negative association between state ownership control and managerial pay before the split-share structural reform may lie in the tradeoff between incentive and insurance: state ownership and the resulting state appointments insulate top executives from

forced turnover. Therefore, the SOE managers may be willing to accept lower compensation in exchange for higher job security; hence, the negative association may not be due to stronger state monitoring and regulation. However, we find that managerial turnover was not significantly larger in private firms than in SOEs.[51] Moreover, this argument also does not explain why state ownership would steer pay-for-performance sensitivity, as one would expect that such job security motivation would undermine pay-for-performance.

Conclusion

In standard economic theories, compensation arrangements are presumed to be shaped by market forces that push towards value-maximization, but are also subject to managerial influence that can lead to departures from that outcome because of self-dealing (Bebchuk & Fried, 2003). We bring a new perspective to executive compensation in China by not just trying to apply models applicable to western economies but by adding the political framework. The political dimension is indeed of central importance in countries without market-oriented institutions and well-defined property rights, which are the pre-requisites for the functioning of markets. Other determinants include a strong market for corporate control, a broad capital market, and a labor market for executives. Using an extensive panel data comprising all non-financial Chinese firms since 2001, we find that in a regulated economy, government ownership of and control over the firm is strongly associated with lower executive compensation, and with higher pay-for-accounting performance sensitivity. The use of market-based performance benchmarks such as Tobin's Q was negatively affected by state ownership prior to the corporate governance reform of 2006, but has at least non-negative (and even positive) effect subsequent to the reform. Neither internal governance mechanisms such as the presence of independent directors nor the degree of market-orientation of the local economy play a role in establishing value-related executive compensation. Instead, the management's connections to politics (e.g., membership or past experience in the communist party or the military) seem to have a large positive impact on managerial pay. Our results on compensation are robust after controlling for endogeneity, various individual and firm characteristics, and macro-economic factors (at the provincial level). Our findings are consistent with neither the optimal contracting theory nor the managerial power theory which are valid only

[51] To check this, we collected information on managerial turnover in the post-2006 subsample, and generated a dummy variable that equals 1 if there was a change in managers in the year under consideration, and 0 otherwise. The average managerial change for SOEs is 24%, while the average managerial change for private firms is 20%.

under the competitive market conditions, but echo the empirical findings by Joskow et al. (1996) on the political constraints of executive compensation in (at that time) regulated US industries.

Many developing economies worldwide are or have been implementing massive privatization programs and establishing more market-based institutions that focus on protecting property rights, whereas others have also seen a rise in importance of the regulatory state (Glaeser & Shleifer, 2003). Hence, the patterns in the relations between political relations and managerial compensation revealed in this study have significant implications on how top executives are incentivized and corporate governance mechanisms function under different institutional arrangements. Our study is also an important extension of several studies on law, institutions, finance, and ownership in China and other emerging economies, including Sun & Tong (2003), Allen et al. (2005), Cull & Xu (2005), and Beck & Laeven (2006). While these studies have documented the importance of political institutions in influencing economic activities in China, our study goes a step further to the firm-level to examine how political factors influence corporate governance mechanisms, and how such influences have evolved over time following the institutional transitions. We show that—at least in terms of incentivizing managers through compensation policies—Chinese firms were strongly influenced by political factors through the choice of performance benchmarks, monitoring mechanisms, and political connections. However, since China's institutional reforms, its governance practices have been converging towards those advocated by the classical economic theories: well-defined property rights, checks and balances at the board level, and properly designed managerial incentives.

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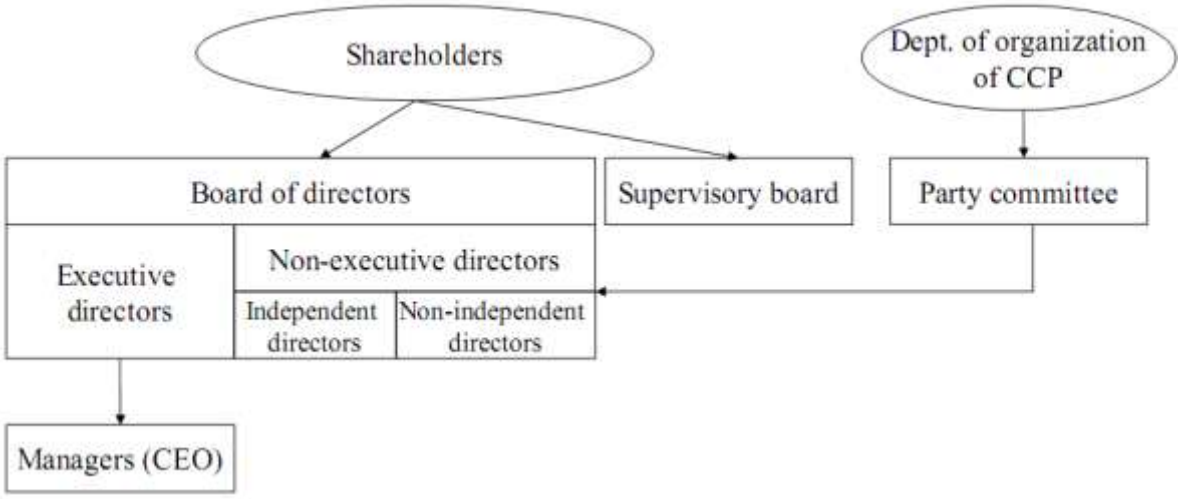

Figure 1. China's corporate governance structure after privatization

Figure 2a illustrates a conceptual internal governance structure of a typical Chinese company since the privatization. The two-tier board structure (the board of directors and the supervisory board) is similar to the German model but the combination of executive and non-executive directors within the board of directors is similar to the US/UK model. The Chinese Communist Party (CCP) usually assigns a Party committee to ensure ideological control. Members of the Party committee usually also sit on the board of directors.

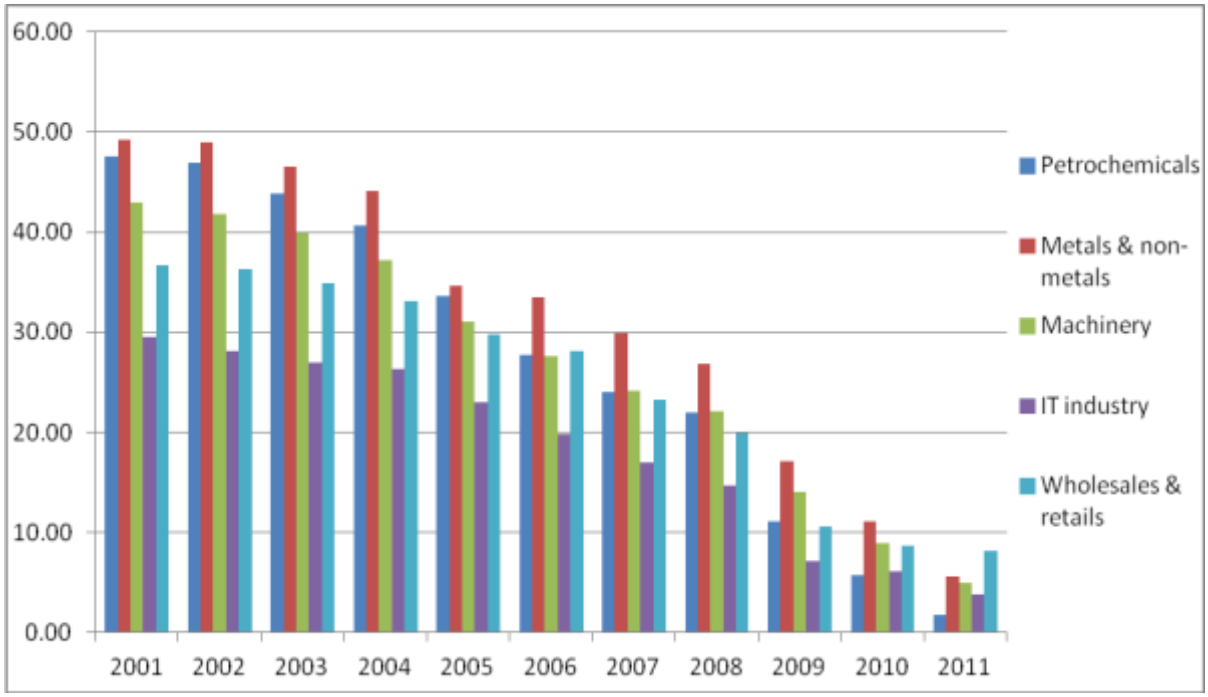

Figure 2a. Evolution of state ownership of the five largest industries (by market capitalization

The vertical axis denotes the percentage of industry-average state ownership.

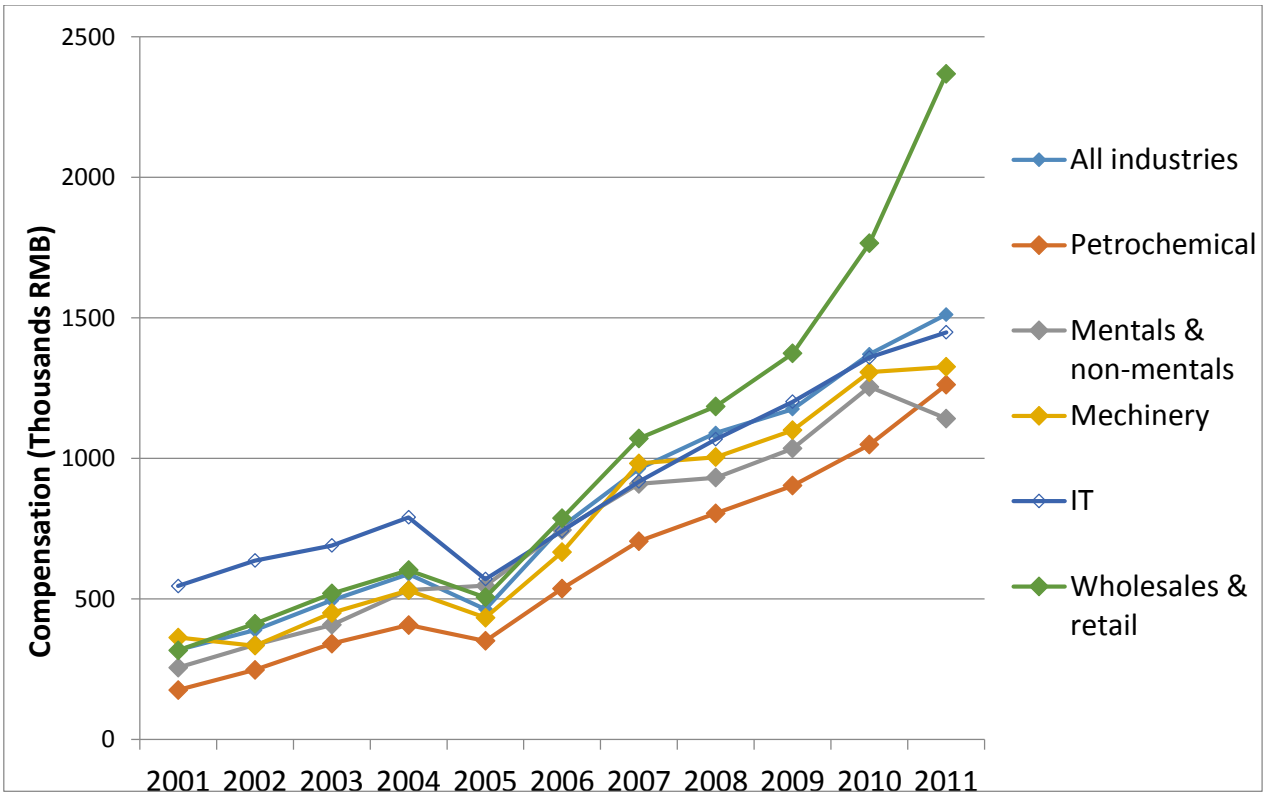

Figure 2b. Evolution of average executive compensation for five largest industries (by market capitalization)

The vertical axis denotes the number of top 3 executives' compensation (inflation-adjusted).

Table 1. Split-Share Structural Reform and Corporate Governance Transition

	Before the Reform	After the Reform
State ownership	Majority ownership	Minority ownership
Shares	Two-thirds of company shares were non-tradable shares restricted by the State	Almost all shares were tradable
Firm performance benchmark	Accounting-based performance, such as return on assets (ROA)	More market-based performance, though accounting-based performance is still important.
State-manager relationship	Alignment of interests; SOE managers are directly appointed by the state and usually serve as government officials, such that they are more politically incentivized.	Conflicts of interest; SOE managers are more often elected through shareholder meetings and behave like professional managers, such that they have more market-related incentives.
Agency conflicts	Mainly between the State as the controlling shareholder and the minority shareholders	Mainly between the manager and the minority shareholders
Governance model	Unification of ownership and control (large non-tradable government controlled share blocks); more politically oriented administrative governance model.	Partial separation of ownership and control (dispersed state ownership); more market-oriented governance model.
SOEs' objectives (incentive structure of SOE managers)	Fulfilling political, social, and economic objectives, with political and social goals being the dominant ones.	Fulfilling political and economic objectives, with the economic ones gaining importance.
Control rights	The state possessed all control rights (in some partially privatized SOEs, voting rights are proportional to shareholdings).	Voting rights proportional to shareholdings.

Table 2. Description of Variables

Variable	Description
Dependent Variable:	
Ln(Compensation)	The natural logarithm of the total compensation in cash of the top three highest-paid top managers. Source: CSMAR (unit: RMB)
State Ownership and Control:	
State Ownership	The percentage of firm's shares directly owned by the State. Source: WIND.
State Ultimate Control	This dummy variable equals 1 if the ultimate controlling shareholder is the State or a government agency, and 0 otherwise. The ultimate controlling shareholder is the largest shareholder (in terms of number of shares held), or the shareholder whose voting rights exceed those of the largest shareholder (who may be the largest in terms of cash flow rights), or the shareholder who holds more than 30% of cash flow and voting rights, or who can determine the nomination of more than half of the directors through exerting voting rights. The definition of ultimate controller is similar to the one used in La Porta et al. (1999) and Claessens et al. (2000). Source: CCER database and CSMAR.
Tunneling:	
Other Receivables	Other receivables as on the company's balance sheet.
Firm Performance:	
ROA	The ratio of net income to the book value total assets. Source: WIND
Tobin's Q	The ratio of the market value of equity to the book value of equity. Source: WIND.
Managerial Background:	
Manager Political Background	Following Faccio (2006), this dummy variable equals 1 if the manager is or was an official in the central government, local government, or the military, and 0 otherwise. Source: manually collected from managers' CVs.
Manager Overseas Work Experience	This dummy variable equals 1 if the manager has worked or is working in a foreign multinational firm, a foreign joint venture, an overseas subsidiary of a Chinese company, or has worked abroad (including Hong Kong, Macau, and Taiwan), and 0 otherwise. Source: manually collected from managers' CVs.
Manager Overseas Education	This dummy variable equals 1 if the manager was educated or obtained a degree abroad, and 0 otherwise. Source: manually collected from managers' CVs.
Manager Accounting Background	This dummy variable equals 1 if the manager has worked in an accounting firm/ position before, and 0 otherwise. Source: manually collected from managers' CVs.
Manager Financial Background	This dummy variable equals 1 if the manager has worked in the financial industry or a CFP in a normal firm before, and 0 otherwise. Source: manually collected from managers' CVs.
Manager Technology Background	This dummy variable equals 1 if the manager has worked in a technology-related firm/ position before, and 0 otherwise. Source: manually collected from managers' CVs.

Manager Academic Background	This dummy variable equals 1 if the manager has worked in academia as a university professor or researcher before, and 0 otherwise. Source: manually collected from managers' CVs.
Female Manager	This dummy variable equals 1 if the manager is female, and 0 if male. Source: manually collected from managers' CVs.
Manager Foreign Nationality	The dummy variable equals 1 if the manager is non-Chinese, and 0 if Chinese. Source: manually collected from managers' CVs.
Education Level	The score ranges from 0 to 4: 0 if his highest educational level is below junior college; 1 in case of junior college; 2 in case of a bachelor degree; 3 if the manager has graduated with a master's degree; and 4 if he graduated with a doctoral degree. Source: manually collected from managers' CVs.
Age	The manager's age. Source: manually collected from managers' CVs.
Board Structures:	
Independent Director Ratio	This ratio is the number of the independent directors divided by the total number of directors. Source: CSMAR.
Board Size	Total number of the company's board members. Source: CSMAR.
Management Team Size	Total number of the company's total management team members. Source: CSMAR.
Compensation Committee	This dummy variable equals 1 if the company has a compensation committee, and 0 otherwise. Source: CSMAR.
Managerial Duality	This dummy variable equals 1 if the positions of the general manager (president) and chairman are held by the same person, and 0 otherwise. Source: CSMAR.
Board Political Connections	The number of directors with government and military work experience and Congress membership divided by the total number of directors on the board. Source: manually collected from directors' CVs.
Local Politicalization and Marketization:	
Market-Orientation Index	The "China marketization index" developed by Fan, Wang, & Zhu (2011) which measures the province-level degree of marketization and can be decomposed into subindices measuring (1) government-market relations, (2) development of the non-SOE sector, (3) development of the commodity market, (4) development of factor markets, and (5) intermediate/legal framework (including the development of market intermediaries, legal environment for businesses, protection of intellectual property rights, and protection of consumer rights).
Distance to Beijing	The geographical distance between the firm's headquarter city to Beijing.
Other Control Variables:	
Leverage	The ratio of the book value of total debt to the book value of total assets. Source: WIND
Firm Size	The natural logarithm of the book value of total assets. Source: WIND
Manager Stock Option	The dummy variable equals 1 when the manager was granted an option plan and 0 otherwise. Source: WIND
Ownership Concentration	Percentage of total shares owned by the five largest blockholders. Source: WIND

Table 3. Descriptive Statistics

All monetary terms are in RMB. Other receivables/assets, ROA, Tobin's Q, sales growth rate, capital intensity, ownership concentration, are winsorized at 5% level. A correlation analysis confirms that there is no multicollinearity (all correlation coefficients between the explanatory and control variables are < 40%).

Variable	Obs.	Mean	Median	Std. Dev.	Min	Max
Dependent Variable:						
Managerial Compensation (000 RMB)	15,314	884	600	1160	0	43300
Ownership and Control:						
State Ownership	15,544	24.56%	16.98%	25.79%	0%	100%
State Ultimate Control	14,650	0.64	1	0.48	0	1
Tunneling:						
Other Receivables/Assets (%)	15,356	3.60	1.60	4.68	0.11	17.63
Firm Performance:						
ROA	15,618	3.90	3.73	5.44	-9.61	14.24
Tobin's Q	15,519	2.17	1.89	2.25	0.92	9.21
Internal Corporate Governance:						
Independent Director Ratio	15,499	36.95	33.33	18.59	0	88.89
Compensation Committee	14,183	0.66	1	0.47	0	1
Managerial Duality	15,508	0.15	0	0.36	0	1
Board Size	15,505	8.81	9	2.46	0	24
Board Political Connections (%)	15,190	13	10	0.16	0	100
Top Management Team Size	15,464	7.08	6	3.95	1	64
Politicalization and Marketization						
Marketization index	15,322	8.01	7.97	2.25	0.33	11.80
Distance to Beijing (kilometers)	16,132	1104	1064	610	0	2563
Managerial Backgrounds:						
Manager Political Background	16,419	20%	0%	40%	0%	100%
Manager Overseas Education	16,422	4%	0%	20%	0%	100%
Manager Overseas Work Experience	16,417	6%	0%	23%	0%	100%
Manager Education Degree	16,292	2.36	2	0.90	0	4
Manager Academic Background	16,420	11%	0%	31%	0%	100%
Manager Technology Background	16,421	43%	0%	49%	0%	100%
Manager Accounting Background	16,421	12%	0%	32%	0%	100%
Manager Financial Background	16,421	6%	0%	24%	0%	100%
Manager Foreign Nationality	16,424	1%	0%	10%	0%	100%
Manager Age (years)	16,353	46.43	46	6.89	21	75
Female Manager	16,423	5%	0%	22%	0%	100%
Other Control Variables:						
Firm Size (Ln(Assets))	15,642	21.35	21.21	1.24	10.84	28.66
Leverage	16,666	0.63	0.49	7.12	0	877.26
Manager Stock Option Plan	15,282	2%	0%	16%	0%	100%
Ownership Concentration (%)	15,329	55%	56%	14%	29%	78%

Table 4. Political Determinants of Executive Compensation: GLS Estimations

The dependent variable is the natural logarithm of the top three highest paid managers' compensation. Independent variables are State Ownership (%), ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level), Independent Director Ratio, Top Management Team size, Compensation Committee dummy, Managerial Duality dummy, Province-Level Marketization Index, the logarithm of Distance to Beijing, and other control variables such as leverage, firm size, ownership concentration of the top 5 blockholders, option granting.*, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

DV = Ln(compensation)	(1) Pre-reform (ex. transition)	(2) Pre-reform (incl. transition)	(3) Post-reform (incl. transition)	(4) Post-reform (ex. transition)	(5) Pre-reform (ex. transition)	(6) Pre-reform (incl. transition)	(7) Post-reform (incl. transition)	(8) Post-reform (ex. transition)
State Ownership	-0.431***	-0.349***	-0.034	-0.002	-0.265**	-0.160	-0.0543	0.031
	(0.090)	(0.081)	(0.052)	(0.054)	(0.115)	(0.100)	(0.0627)	(0.068)
State Ownership×ROA (winsor)	0.035***	0.018**	0.010*	0.011				
	(0.009)	(0.009)	(0.006)	(0.007)				
State Ownership× Q (winsor)					-0.034	-0.074*	0.0184	0.004
					(0.045)	(0.040)	(0.011)	(0.016)
Tobin's Q (winsorized)	0.009	0.009	0.015***	0.014***	0.017	0.026**	0.012***	0.014***
	(0.009)	(0.010)	(0.004)	(0.005)	(0.013)	(0.013)	(0.005)	(0.005)
ROA (winsorized)	0.007*	0.019***	0.018***	0.015***	0.019***	0.024***	0.0193***	0.016***
	(0.004)	(0.004)	(0.002)	(0.002)	(0.003)	(0.003)	(0.002)	(0.002)
Independent Director Ratio	0.036	0.080	-0.084*	-0.104**	0.0334	0.0779	-0.0832*	-0.104**
	(0.104)	(0.110)	(0.046)	(0.044)	(0.104)	(0.110)	(0.0461)	(0.0438)
Ln(Other receivables)	-0.011	-0.014	0.001	0.001	-0.0108	-0.0135	0.00035	0.00106
	(0.010)	(0.009)	(0.007)	(0.008)	(0.010)	(0.00874)	(0.007)	(0.0077)
Top Management Team Size	0.034***	0.049***	0.017***	0.013***	0.034***	0.0487***	0.0168***	0.0128***
	(0.006)	(0.006)	(0.003)	(0.003)	(0.006)	(0.00592)	(0.00333)	(0.00350)
Compensation Committee	0.116***	0.104***	0.052*	0.182*	0.115***	0.104***	0.0509*	0.180*
	(0.027)	(0.026)	(0.030)	(0.106)	(0.027)	(0.0261)	(0.0296)	(0.106)
Managerial Duality	0.062*	0.026	0.057*	0.082**	0.060	0.0249	0.0578**	0.0823**
	(0.038)	(0.036)	(0.029)	(0.034)	(0.038)	(0.0356)	(0.0292)	(0.0335)

Table 4 (Cont). Political Determinants of Executive Compensation: GLS Estimations

DV = Ln(compensation)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pre-reform (ex. transition)	Pre-reform (incl. transition)	Post-reform (incl. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Pre-reform (incl. transition)	Post-reform (incl. transition)	Post-reform (ex. transition)
Market-Orientation Index	0.026	0.050	0.008	-0.009	0.0265	0.0505	0.0095	-0.00653
	(0.036)	(0.037)	(0.022)	(0.040)	(0.0360)	(0.0377)	(0.0217)	(0.0397)
Ln(Distance to Beijing)	0.314***	0.241**	-0.058	-0.027	0.309***	0.244**	-0.0558	-0.0245
	(0.113)	(0.111)	(0.110)	(0.123)	(0.114)	(0.112)	(0.110)	(0.123)
Leverage	-0.015	-0.027	0.002***	0.010***	-0.00873	-0.0214	0.00194***	0.0102***
	(0.022)	(0.021)	(0.0002)	(0.002)	(0.0196)	(0.0200)	(0.0002)	(0.0019)
Firm Size	0.247***	0.267***	0.237***	0.252***	0.247***	0.265***	0.238***	0.252***
	(0.020)	(0.020)	(0.016)	(0.017)	(0.0205)	(0.0204)	(0.0157)	(0.0169)
Ownership Concentration	0.303*	0.373**	0.067	0.0546	0.305*	0.366**	0.0592	0.0528
	(0.170)	(0.161)	(0.093)	(0.098)	(0.170)	(0.162)	(0.0930)	(0.0981)
Manager Stock Option Plan	.	-0.722***	0.068*	0.178***	.	-0.737***	0.0663	0.176***
	.	(0.043)	(0.041)	(0.052)	.	(0.0424)	(0.0407)	(0.0514)
Year Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	4224	5332	6640	4185	4224	5332	6640	4185
R-squared	41.8%	40.0%	43.4%	39.9%	41.7%	39.7%	43.4%	39.9%

Table 5. Interactions of Different State Ownership Measures and Performance Benchmarks: GLS Estimations

The dependent variable is the natural logarithm of the top three highest paid managers' compensation. Independent variables are State Ownership (%), State Ultimate Control (dummy), ROA (winsorized at the 95% level), Tobin's Q (winsorized at the 95% level), the interactions between State Control and ROA, between State Ownership and Tobin's Q, and between State Control and Tobin's Q, independent director ratio, top management team size, compensation committee (dummy), managerial duality (dummy), province-level marketization index, the logarithm of Distance to Beijing, and other control variables such as leverage, firm size, ownership concentration of the top five blockholders, manager stock option plan (dummy).*, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

DV = Ln(compensation)	(1) Pre-reform (incl. transition)	(2) Post-reform (incl. transition)	(3) Pre-reform (incl. transition)	(4) Post-reform (incl. transition)
State Ultimate Control×ROA	0.012**	0.008***		
	(0.005)	(0.003)		
State Ultimate Control×Q			-0.038**	0.012**
			(0.018)	(0.005)
State Ultimate Control	-0.094***	-0.011	0.003	-0.028
	(0.035)	(0.029)	(0.047)	(0.033)
Tobin's Q (winsorized)	0.009	0.015***	0.029**	0.009*
	(0.010)	(0.004)	(0.013)	(0.005)
ROA (winsorized)	0.017***	0.016***	0.025***	0.020***
	(0.004)	(0.002)	(0.003)	(0.002)
Independent Director Ratio	0.090	-0.099**	0.091	-0.096***
	(0.111)	(0.047)	(0.111)	(0.002)
Ln(Other Receivables)	-0.014	0.001	-0.013	0.0002
	(0.009)	(0.007)	(0.009)	(0.007)
Top Management Team Size	0.049***	0.017***	0.045***	0.016***
	(0.006)	(0.003)	(0.006)	(0.003)
Compensation Committee	0.105***	0.054*	0.104***	0.055*
	(0.026)	(0.030)	(0.026)	(0.030)
Managerial Duality	0.029	0.058**	0.026	0.058**
	(0.036)	(0.029)	(0.036)	(0.029)
Market-Orientation Index	0.049	0.006	0.052	0.009
	(0.038)	(0.022)	(0.038)	(0.022)
Ln(Distance to Beijing)	0.276**	-0.044	0.277***	-0.042
	(0.112)	(0.111)	(0.112)	(0.111)
Leverage	-0.029	0.002***	-0.022	0.002***
	(0.021)	(0.0002)	(0.020)	(0.0002)
Firm Size	0.264***	0.236***	0.262***	0.239***
	(0.021)	(0.016)	(0.021)	(0.016)
Ownership Concentration	0.119	0.058	0.120	0.044
	(0.146)	(0.095)	(0.146)	(0.095)
Manager Stock Option Plan	-0.732***	0.063	-0.754***	0.061
	(0.044)	(0.041)	(0.044)	(0.041)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Province Fixed Effects	Yes	Yes	Yes	Yes
Observations	5329	6651	5329	6651
R-squared	39.7%	43.6%	39.4%	43.5%

Table 6. Political Determinants of Executive Compensation

(Arellano-Bond Dynamic Panel Data Estimations)

The dependent variable is the natural logarithm of the top three highest paid managers' compensation. Independent variables are one-year lagged managerial compensation, State ownership (%), ROA (winsorized at the 95% level), the interaction between State ownership and ROA, Tobin's Q (winsorized at the 95% level), independent director ratio, top management team size, compensation committee dummy, managerial duality dummy, province-level marketization index, logarithm of distance to Beijing, together with other control variables. Coefficients are estimated by the Arellano-Bond GMM-in-systems test with one-period lag. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

DV = Ln(compensation)	(1)	(2)	(3)	(4)
	Pre-reform	Post-reform	Pre-reform	Post-reform
Ln(compensation) (t-1)	0.773**	0.690***	0.802**	0.702***
	(0.314)	(0.056)	(0.317)	(0.0572)
State Ownership × ROA (winsor.)	0.027*	0.013		
	(0.016)	(0.009)		
State Ownership × Q (winsor.)			0.0317	0.0324*
			(0.0717)	(0.0184)
State Ownership	-0.203	-0.072	-0.212	-0.138
	(0.185)	(0.083)	(0.228)	(0.0999)
Ln(Other receivables)	0.018	-0.007	0.0205	-0.00748
	(0.019)	(0.011)	(0.0194)	(0.0112)
Tobin's Q (winsorized)	-0.003	0.009*	-0.00957	0.00368
	(0.016)	(0.005)	(0.0237)	(0.00586)
ROA (winsorized)	0.010	0.009***	0.0190***	0.0107***
	(0.007)	(0.003)	(0.00481)	(0.00220)
Independent Director Ratio	0.231	0.028	0.231	0.0302
	(0.211)	(0.062)	(0.215)	(0.0624)
Top Management Team Size	0.029***	0.012*	0.0288**	0.0116*
	(0.011)	(0.007)	(0.0112)	(0.00704)
Compensation Committee	0.055	-0.029	0.0518	-0.0296
	(0.063)	(0.058)	(0.0635)	(0.0580)
Managerial Duality	-0.006	0.124***	-0.00751	0.127***
	(0.063)	(0.046)	(0.0644)	(0.0462)
Market-Orientation index	0.028	-0.019	0.0226	-0.0173
	(0.116)	(0.030)	(0.117)	(0.0299)
Ln(Distance to Beijing)	0.569*	0.265**	0.567*	0.248**
	(0.329)	(0.109)	(0.334)	(0.110)
Leverage	0.028	0.013*	0.0295	0.0133*
	(0.047)	(0.008)	(0.0481)	(0.00765)
Firm Size	-0.068	0.122***	-0.0852	0.121***
	(0.095)	(0.030)	(0.0957)	(0.0297)
Ownership Concentration	-0.333	-0.102	-0.314	-0.0948
	(0.522)	(0.203)	(0.533)	(0.204)
Manager Stock Option Plan		0.038		0.0282
		(0.080)		(0.0807)
Observations	1916	3653	1916	3653

Table 7. Managerial and Board Political Backgrounds: GLS Estimations

The dependent variable is the natural logarithm of the top three highest paid managers' compensation. Independent variables are state ownership (%), ROA (winsorized at the 95% level), the interaction between State ownership and ROA, Tobin's Q (winsorized at the 95% level), independent director ratio, top management team size, compensation committee dummy, managerial duality dummy, province-level marketization index, the logarithm of distance to Beijing, a series of top manager's background dummies (political work experience, technology industry work experience, financial industry work experience, accounting-related work experience, academic work experience [universities or research institutes], overseas education experience, overseas/multinational work experience, education degree, foreign nationality, gender [female] and age), together with other control variables.*, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

DV = Ln(compensation)	(1) Pre-reform (ex. transition)	(2) Pre-reform (incl. transition)	(3) Post-reform (incl. transition)	(4) Post-reform (ex. transition)
Managerial backgrounds				
Manager Political Background	0.035	0.038	0.058	0.066
	(0.032)	(0.030)	(0.045)	(0.059)
Manager Technology Background	0.020	0.019	-0.031	-0.031
	(0.027)	(0.026)	(0.033)	(0.044)
Manager Accounting Background	-0.005	-0.003	0.016	-0.021
	(0.032)	(0.032)	(0.042)	(0.047)
Manager Finance Background	-0.006	-0.005	-0.077	-0.029
	(0.061)	(0.055)	(0.051)	(0.058)
Manager Academic Background	0.085**	0.088**	0.004	0.022
	(0.040)	(0.037)	(0.041)	(0.046)
Manager Overseas Education	-0.020	0.044	0.029	-0.010
	(0.093)	(0.083)	(0.066)	(0.066)
Manager Overseas Work Experience	0.091*	0.109**	0.169***	0.194**
	(0.051)	(0.049)	(0.064)	(0.077)
Manager Education Degree	0.016	0.019	0.032*	0.037
	(0.015)	(0.015)	(0.017)	(0.024)
Manager Foreign Nationality	0.114	0.149	0.204	0.098
	(0.125)	(0.120)	(0.153)	(0.136)
Manager Age	-0.001	-0.002	0.007***	0.009***
	(0.002)	(0.002)	(0.002)	(0.002)
Female Manager	-0.012	-0.050	-0.044	-0.013
	(0.057)	(0.057)	(0.046)	(0.052)
Board Political Connections	-0.074	0.034	-0.240**	-0.175
	(0.107)	(0.105)	(0.114)	(0.146)
Other variables				
State ownership × ROA (winsorized)	0.033***	0.014	0.010	0.011
	(0.010)	(0.009)	(0.006)	(0.007)
State ownership	-0.405***	-0.315***	-0.033	-0.002
	(0.091)	(0.082)	(0.053)	(0.055)
Ln(Other receivables)	-0.010	-0.015*	0.003	0.002
	(0.009)	(0.009)	(0.007)	(0.008)

Table 7 (Cont). Managerial and Board Political Backgrounds: GLS Estimations

DV = Ln(compensation)	(1) Pre-reform (ex. transition)	(2) Pre-reform (incl. transition)	(3) Post-reform (incl. transition)	(4) Post-reform (ex. transition)
Tobin's Q (winsorized)	0.010	0.009	0.013***	0.013**
	(0.010)	(0.011)	(0.004)	(0.005)
ROA (winsorized)	0.007*	0.020***	0.017***	0.014***
	(0.004)	(0.004)	(0.002)	(0.002)
Independent Director Ratio	-0.017	0.050	-0.061	-0.085**
	(0.108)	(0.113)	(0.043)	(0.042)
Top Management Team Size	0.035***	0.050***	0.019***	0.014***
	(0.006)	(0.006)	(0.004)	(0.004)
Compensation Committee	0.106***	0.101***	0.052*	0.178
	(0.027)	(0.026)	(0.030)	(0.111)
Managerial Duality	0.079**	0.043	0.035	0.047
	(0.039)	(0.037)	(0.031)	(0.038)
Market-Orientation Index	0.027	0.043	0.008	0.001
	(0.036)	(0.039)	(0.022)	(0.041)
Ln(Distance to Beijing)	0.324***	0.227*	0.027	0.069
	(0.118)	(0.116)	(0.115)	(0.132)
Leverage	-0.006	-0.018	0.002***	0.011***
	(0.020)	(0.019)	(0.0002)	(0.002)
Firm Size	0.246***	0.267***	0.228***	0.248***
	(0.021)	(0.021)	(0.016)	(0.017)
Ownership Concentration	0.272	0.325**	0.013	-0.028
	(0.173)	(0.163)	(0.100)	(0.107)
Manager Stock Option Plan		-0.780***	0.083**	0.185***
		(0.047)	(0.040)	(0.052)
Year Fixed Effects	Yes	Yes	Yes	Yes
Industry Fixed Effects	Yes	Yes	Yes	Yes
Province Fixed Effects	Yes	Yes	Yes	Yes
Observations	4037	5116	6195	3785
R-squared	0.4147	0.3973	0.4375	0.4069

Table 8. Robustness Tests

The dependent variable is the natural logarithm of the top three highest paid managers' compensation. Independent variables are state ownership (%), ROA (winsorized at the 95% level), the interaction between State ownership and ROA, Tobin's Q (winsorized at the 95% level), independent director ratio, top management team size, compensation committee dummy, managerial duality dummy, province-level marketization index, the logarithm of distance to Beijing, together with other control variables. Models (1)-(2) are estimated using firm and year fixed effects, models (3)-(4) are estimated using pure random effects, models (5)-(6) are estimated using pooled OLS, and models (7)-(8) are estimated with all independent variables being taken one-year lagged values. *, **, and *** stand for significance at the 10%, 5% and 1%, respectively. Standard errors are clustered at the firm level and reported in parentheses.

	Firm fixed effects		Pure random effects		Pooled OLS		1-year lead-lag model	
DV = Ln(compensation)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)
State Ownership × ROA (winsor)	0.034***	0.009	0.039***	0.011	0.041***	0.009	0.012	0.017**
	(0.010)	(0.007)	(0.009)	(0.007)	(0.013)	(0.011)	(0.010)	(0.007)
State Ownership	-0.405***	0.046	-0.510***	-0.099*	-0.486***	-0.029	-0.159*	-0.028
	(0.155)	(0.062)	(0.089)	(0.054)	(0.093)	(0.078)	(0.092)	(0.061)
Ln(Other Receivables)	-0.016	-0.003	-0.004	0.003	0.033***	0.024**	-0.013	0.002
	(0.012)	(0.010)	(0.010)	(0.008)	(0.013)	(0.010)	(0.010)	(0.008)
Tobin's Q (winsorized)	0.013	0.010**	-0.008	0.021***	-0.013	0.025***	0.017	0.017***
	(0.010)	(0.005)	(0.010)	(0.004)	(0.014)	(0.006)	(0.012)	(0.004)
ROA (winsorized)	0.002	0.006***	0.005	0.017***	0.022***	0.038***	0.025***	0.014***
	(0.005)	(0.002)	(0.004)	(0.002)	(0.006)	(0.003)	(0.005)	(0.002)
Independent Director Ratio	-0.011	-0.052	0.735***	-0.086**	0.859***	-0.156**	0.150	0.005
	(0.107)	(0.046)	(0.078)	(0.043)	(0.100)	(0.068)	(0.122)	(0.130)
Top Management Team Size	0.030***	0.014	0.0342***	0.012***	0.041***	0.014***	0.039***	0.009**
	(0.007)	(0.009)	(0.006)	(0.003)	(0.008)	(0.003)	(0.006)	(0.004)
Compensation Committee	0.114***	0.144	0.159***	0.165	0.143***	0.238**	0.067***	0.049
	(0.032)	(0.135)	(0.027)	(0.102)	(0.034)	(0.106)	(0.026)	(0.058)
Managerial Duality	0.060	0.110**	0.064*	0.076**	0.112**	0.057	0.025	0.022
	(0.041)	(0.043)	(0.037)	(0.035)	(0.052)	(0.041)	(0.039)	(0.033)

Table 8 (Cont). Robustness Tests

	Firm fixed effects		Pure random effects		Pooled OLS		1-year lead-lag model	
DV = Ln(compensation)	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)	Pre-reform (ex. transition)	Post-reform (ex. transition)
Market-Orientation Index	0.019	-0.015	0.170***	0.087***	0.148***	0.086***	0.051	0.038**
	(0.036)	(0.037)	(0.009)	(0.007)	(0.009)	(0.008)	(0.041)	(0.019)
Ln(Distance to Beijing)	.	.	0.183***	0.166***	0.190***	0.162***	0.213*	0.038
	.	.	(0.031)	(0.029)	(0.031)	(0.028)	(0.115)	(0.119)
Leverage	-0.019	0.011***	-0.001	0.012***	-0.011	0.005	-0.005	0.008***
	(0.021)	(0.003)	(0.018)	(0.002)	(0.036)	(0.005)	(0.024)	(0.003)
Firm Size	0.202***	0.150***	0.248***	0.276***	0.204***	0.252***	0.258***	0.223***
	(0.041)	(0.031)	(0.020)	(0.016)	(0.024)	(0.016)	(0.024)	(0.017)
Ownership Concentration	0.713*	0.222	0.223	-0.077	0.098	-0.212**	0.193	0.173*
	(0.388)	(0.176)	(0.168)	(0.095)	(0.171)	(0.107)	(0.173)	(0.097)
Manager Stock Option Plan	.	0.053	.	0.196***	.	0.207***	.	0.076*
	.	(0.088)	.	(0.051)	.	(0.058)	.	(0.039)
Firm Fixed Effects	Yes	Yes	No	No	No	No	No	No
Industry Fixed Effects	No	No	No	No	No	No	Yes	Yes
Year Fixed Effects	Yes	Yes	No	No	No	No	Yes	Yes
Province Fixed Effects	No	No	No	No	No	No	Yes	Yes
Observations	4224	4185	4224	4185	4224	4185	4122	4467
R-squared	38.9%	16.7%	35.2%	35.1%	36.3%	36.9%	36.4%	38.2%

Chapter 6. An Anatomy of State Control in the Globalization of State-Owned Enterprises

Hao Liang, Bing Ren, Sunny Li Sun [52]

ABSTRACT

Integrating agency theory with institutional analysis in international business, we propose a state-control perspective to analyze government-control mechanisms in emerging economies' globalization of state-owned enterprises (SOEs). We identify two types of state control that influence SOEs' globalization decisions and the degree of globalization: state ownership control and executives' political connections, both of which are contingent upon the home country's evolving institutional environments. Using a two-step corporate globalization decision model and 17,272 firm-year observations of non-financial, Chinese-listed companies, we find a strong impact of both types of state control on SOEs' globalization, although the impacts differ between the periods before and after domestic governance reform and across different globalization-decision steps. The diminishing impact of executives' political connections and the increasing impact of state ownership control on firms' degree of globalization demonstrate the evolving relationship between the state and the managers, as well as the dynamics of state control in globalizing SOEs.

Keywords: Agency theory, state control, state ownership, political connections, state-owned enterprises, corporate globalization.

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The second and the third authors made equal contributions. Bing Ren thanks The Program for Changjiang Scholars and Innovative Research Team in University (PCSIRT) (Program code: IRT0926), The China National Natural Science Foundation Project (Fund code: 71272178) and Central Higher-Education Fundamental Research Fund (Fund code: NKZXB1118) for financial support of this research. Sunny Li Sun thanks Kemper Summer Research Grant from Bloch School of Management, UMKC. We are grateful to Kannan Ramaswamy, Aldo Mussachio, Alvaro Cuervo-Cazurra, Andrew Inkpen, and three anonymous reviewers, as well as Victor Chen, Runhui Lin, Christopher Marquis, Xavier Martin, Mike Peng, Linda Rademaker, Luc Renneboog, Weilei (Stone) Shi, Daying Yan, and seminar and conference participants at Harvard Kennedy School, Harvard Business School, Harvard Law School, Tilburg University, Hong Kong Baptist University, Peking University (National School of Development), and Nankai University for their constructive comments. We also thank Dennis de Buijzer, Ying Zheng, Yan Wang, Haoyu Wu, Haikun Zhu, Lu Liu, Kai Dai, Zhe Wang, Di Yin, Yao Chu, and Yongjing Li for their excellent work on collecting the data and Ray Hardesty for copy editing.

Introduction

The spectacular growth of globalization by state-owned enterprises (SOEs) from emerging economies over the past few decades contradicts most traditional international business (IB) theories. Numerous studies, which have attempted to explain the patterns and motivations behind SOEs' globalization, have emphasized that "the state (government) matters." However, the mechanisms by which the state matters remains largely unexplored. Corporate globalization is a complex decision-making process that involves conflicts among multiple constituencies, including the home-country state, the host-country state, SOE managers, and minority shareholders as well as each constituency's underlying, evolving institutions (Cantwell, Dunning, & Lundan, 2010; Cui & Jiang, 2012; Luo & Wang, 2012). This complex undertaking requires an in-depth and nuanced analysis on state-control mechanisms at the decision-maker level—particularly in the relationship between state and SOE managers in different institutional environments—and has received comparatively little attention in the literature. In addition, IB researchers have only until recently realized the importance of studying the role of the managerial decision-making process in the actions of multinational companies (MNCs), including SOEs (Aharoni, Tihanyi, & Connelly, 2011). These deficiencies call for a more integrative view on the roles of the state and managerial decision making in SOEs' globalization.

We address these issues in this paper by proposing a state-control perspective on SOEs' globalization to answer the question: ***How does state control influence the degree of SOEs' globalization from emerging economies?*** We investigate this question primarily from the perspective of the state's governance mechanisms in SOEs that shape the state-manager relationship and their globalization decisions. Among various theoretical perspectives related to this inquiry, the agency theory is probably the most appropriate in describing the state-manager relationship and the managerial decision-making process. However, the agency theory does not consider how managerial incentives and the state's interests differ, nor has it been systematically applied to the context of globalization. In many emerging economies, SOE managers are often directly appointed by the state after serving as government officials (Brockman, Rui, & Zou, 2013; Fan, Wong, & Zhang, 2007) and their companies go global following the guidance and capital control by the home state (Cui & Jiang, 2012). Correspondingly, SOE managers are incentivized not just by the prospect of increasing economic performance but also (and more importantly) by fulfilling the state's political and social objectives in devising globalization strategies (Cuervo-Cazurra and Dau, 2009a; 2009b). Therefore, the picture of the state-manager relationship,

managerial incentives, and the corresponding control mechanisms in globalization can be different from that depicted by traditional agency theory and contingent on the institutional environments.

Such institutional roles are closely related to the institutional analysis in strategy and IB (e.g., Dunning & Lundan, 2008; Peng, Sun, Pinkham, & Chen, 2009), which emphasizes the importance of institutional environments and firm response in the choices of multinationals' globalization strategies. In our conception, institutional environment can be administrative and market-oriented. The administrative institutions in the home state rely on political connections and are a substitute for market-based pecuniary incentives abroad, which align the interests of SOE managers with that of the state. In contrast, the market-oriented institutions in the home state rely on an ownership arrangement and are compatible with pecuniary incentives internationally, but also increase the information asymmetry and agency costs between the state, the SOE, and foreign subsidiary managers. Consequently, SOEs' degree of globalization is inherently affected by different governance mechanisms and the underlying institutional environment.

We examine our state-control perspective on the globalization of SOEs from China. China launched its "Go Global" policy with regard to SOEs, which were hailed as "national champions," and have boosted China's soaring outward foreign direct investment (OFDI) since 2000 (Lin & Milhaupt, 2013). Moreover, China started the split-share structural reform in 2006 as part of its ongoing changes during the market transition that extensively transferred the state shares in SOEs to private investors (Haveman & Wang, 2013)[53] and transformed the corporate governance model from administrative to market-oriented (Peng 2003; Ralston, Terpstra-Tong, Terpstra, Wang, & Egri, 2006). All these features offer us an ideal setting in which to study the dynamics of institutions and state control in SOEs' globalization. In addition, such governance reforms are not unique to China but are widely occurring in other emerging economies (Hoskisson, Wright, Filatotchev, & Peng, 2013; Inoue, Lazzarini, & Musacchio, 2014).

Our paper makes two main contributions to the IB and SOE literature. At the basic level, we disentangle the mechanisms of state control in SOEs' globalization. While the dominant role of the government in globalizing SOEs has been reiterated in many studies, the underlying mechanisms are still far from clear. As we show in this paper, it is crucial to examine the

[53] In April 2005 (effective from 2006), the Chinese government initiated the split-share structure reform of turning non-tradable shares (owned by the government) into tradable shares (called the share-issue privatization (SIP)) for all listed domestic firms. More than 1,400 listed companies could "gradually" convert their non-tradable shares. Holders of non-tradable shares compensated holders of tradable shares in each individual firm for approximately 3 shares per 10 shares on average so as to make the non-tradable shares tradable. All Chinese-listed companies completed their negotiations by the end of 2008 and all of their restricted shares became fully tradable by the end of 2011.

governance mechanisms—both the government ownership stakes and executives' political connections—that shape managerial incentives, agency concerns, and the state-manager relationship in the complex globalization process. Secondly, we contribute to the understanding of the managerial decision-making role in globalization, which is an important yet underexplored area of IB research (Aharoni *et al.*, 2011). By showing that SOEs' globalization decisions are influenced by the state control mechanisms through different decision processes and institutional environments, we bridge an acknowledged gap between macro- and micro-level dynamics of globalization. Our broader conclusion is that investigating the dynamics of state control in globalization decisions is essential in understanding emerging SOEs' behaviors around the globe.

Theory and Hypothesis

To theoretically investigate the complexity and dynamics of globalization under state control, we propose a state-control perspective by extending the agency theory and integrating it with the recently developed institutional analysis in IB. Our state-control perspective identifies two alternative SOE government-control mechanisms that lead to different levels of globalization. The high-risk features of globalization and potential conflicts of interest among multiple constituents require both ownership-based and connection-based means of control that complement each other in tackling cross-border risks and agency conflicts (Peng, 2003; Peng *et al.*, 2009). The ownership-based means emphasizes direct control through government ownership and voting rights on corporate decision making in globalization. The connection-based means emphasizes indirect control that takes place through the manager's social and psychological contract with the domestic state. Both means help reduce information asymmetry between the state and SOEs and facilitate SOEs to carry out the state's goals in cross-border deals with lower agency costs. We therefore propose that the *state's ownership control* and *executives' political connections* are the two major ways in which the domestic state controls SOEs' globalization, and managers adapt to such controls in formulating their globalization strategies.

The impact of these two major mechanisms of state control on SOEs' globalization is manifested by the changing institutional environment, from administrative to market-oriented, which can be studied in the context of the domestic ownership-based governance reform—the reform aimed at transferring ownership from the hands of the state to that of the market (Cuervo-Cazurra & Dau, 2009b; Inoue *et al.*, 2013). Although both are governance mechanisms, the state's control through political connections is enacted more in the institutional environment dominated by administrative orders (i.e., before governance reform), while the state's ownership control is enacted more in the

institutional environment characterized by well-functioning market disciplines and market-oriented ownership arrangements (i.e., after governance reform). Therefore, different domestic institutional environments influence the extent to which certain control mechanisms are enabled. These mechanisms also differ in their compatibility with institutions in the host country, which affects the degree of globalization abroad. We summarize the evolution of the state-manager relationship and state-control mechanisms in Table 1, in which we attach the two general institutional environments to two time periods: before and after corporate governance reform. The contexts in Table 1 are based on Chinese experience for the easiness of illustration. However, the mechanisms are generalizable to SOEs in other emerging economies. We further develop several testable hypotheses on such dynamics of state control on SOEs' globalization in the following section.

[Insert Table 1 about here.]

The Vertical Evolvement of State Control on SOE's Globalization

First, we propose that the effectiveness of the two state-control mechanisms relies on different enabling institutions. Consequently, the functioning of the two means of state control over globalization undergo changes over time (i.e., "vertically") in accordance with changes in their institutional environments. Ownership control relies mainly on modern property-rights institutions to reduce information asymmetry and agency costs between the principal (the state) and the agent (the manager) domestically (Cuervo-Cazurra & Dau, 2009a; 2009b; Hoskisson *et al.*, 2013; Inoue *et al.*, 2013; also see Table 1). This effect also relies on compatibility with the host-country institutions, which helps to reduce agency costs in overseas operations. In contrast, the political personnel control—control through political connections—relies on administrative and bureaucratic institutions to align the interests of the manager with those of the state, especially when the market institutions are weak and the domestic governance is less compatible with host-country institutions (Brockman *et al.*, 2013; Fan, Wong, & Zhang 2007; also see Table 1). Accordingly, firms adjust their globalization strategies in response to changes in their external institutional environments (Peng, 2003).

Under ***state ownership control***, the effect of control on SOEs' globalization is weak when home-country property rights are poorly defined and protected, and when home-country institutions are dominated by administrative orders that are less compatible with more market-oriented institutions internationally. This is usually the case when domestic institutions are authoritarian without proper corporate governance reform (Shleifer, 1998; Chang & Wong, 2004). However, when home-country property rights are more clearly defined following domestic

governance reform (Haveman & Wang, 2013; Peng, 2003), SOEs' governance structures become more market-oriented and compatible with international governance practices (Megginsion & Netter, 2001). These governance practices include, for example, a standard selection process for directors and executives and the introduction of independent directors, which provide more ownership-based tools for state control in overseas operation. Moreover, block ownership gives the state an incentive to monitor and evaluate SOE managers' performance (Lin & Milhaupt, 2013). As a result, the functioning of ownership control is more likely to be institutionally enacted. Therefore, we hypothesize that:

H1a. State ownership control has a stronger impact on SOEs' globalization after corporate governance reform than before reform.

In contrast, ***political connection control*** functions in the opposite way in globalization. Before domestic governance reform, the administrative institutional environment was conducive to the use of political personnel control to influence SOE managers' decision making due to weak property rights institutions and scarcity of market-based systems for efficient international resource allocation (Brockman *et al.*, 2013). However, such a role for political connections is attenuated by the continuing domestic market-oriented reforms, as more resources supporting SOEs' globalization are gradually transferred from the government's hands to the private sector and increasingly coordinated by the developing factor markets (Hoskisson *et al.*, 2013). In addition, greater compatibility between the home country and international corporate governance regimes provides less scope for functional administrative orders (political personnel control). Therefore, we hypothesize that:

H1b. Managers' political connections have a stronger impact on SOEs' globalization before corporate governance reform than after reform.

The Horizontal Evolvement of State Control on SOEs' Globalization

We now propose that the functioning of the two state-control mechanisms also evolves interchangeably ("horizontally") in accordance with changes in the enabling institutions. We argue that the home state realizes the different levels of effectiveness of the two available control mechanisms contingent on different institutional environments, thus can adapt to domestic institutional transitions with alternate mechanisms to maintain its impact, and SOE managers adapt to such mechanisms in their globalization strategies. ***Before governance reform***, a weak home-country institutional environment makes managers behave more like politicians because they are directly appointed and closely watched by state administrators (Chang & Wong, 2004;

Ralston *et al.*, 2006). Consequently, SOE managers' interests are more aligned with those of the state (Boisot & Child, 1988). Therefore, information asymmetry is low between the state and SOE managers but high between the home country and host countries because of different governance regimes (Luo &Wang, 2012). As a result, the state uses domestic political connections rather than ownership control as a more efficient and less costly means of controlling SOEs' globalization. Therefore, we hypothesize that:

H2a. Before corporate governance reform, the roles of the state relative to SOEs' globalization functioned ***more likely*** *through managers' political connections rather than through state ownership control.*

After governance reform, compatibility between the market-based institutions of the home country and international-governance regimes leads to SOE managers behaving more like professional executives as they are more often elected and monitored by boards of directors (Megginson & Netter, 2001). As a result, SOE managers' interests are more often in conflict with those of the state, and the information asymmetry between the state and SOE managers is higher, particularly during globalization (Knutsen, Rygh, Hveem, 2011). In such cases, state ownership control is more efficient for the state to curb managerial opportunism and reduce agency costs in these state-owned MNCs under a market-oriented governance system (Li & Qian, 2013; Morck, Yeung, & Zhao, 2008). SOE managers also respond to a new institutional regime by conforming more to the ownership arrangement in their globalization strategies so as to better leverage the state's resource advantages and preferential policies to overcome uncertainties abroad (Li, Cui, & Lu, 2014; Meyer, Ding, Li, & Zhang, 2014). Consequently, the state-control mechanism to influence SOEs' globalization shifts from relying mainly on administrative orders to relying mainly on market-based orders. Therefore, we hypothesize that:

H2b. After corporate governance reform, the roles of the state relative to SOEs' globalization functioned ***more likely*** *through state ownership control rather than through managers' political connections.*

State Control in the Decision-Making Process: First Step vs. Second Step

Finally, we propose that the managerial decision-making process under state control of SOEs' globalization tends to take sequential steps. Some literature makes a similar argument that firms' strategic choices are endogenous and self-selected under institutional constraints (Dastidar, 2009; Gao, Murray, Kotabe, & Lu, 2010) and thus also follow sequential decisions (Tallman & Shenkar, 1994; Aharoni *et al.*, 2011; Peng, 2012; Sun, Peng, Lee, & Tan, 2014). We therefore propose that the globalization decision is structured as a two-step process: in the first step, the SOE decides whether or not to go global; in the second step, the SOE decides on the extent to which the firm

will invest abroad—i.e., the degree of globalization. Correspondingly, the impact of state control can vary across the two steps. Such a managerial decision-making process also matches the process of state control in globalization: at the initial stage, the government frequently uses administrative orders to select and approve certain SOEs as national champions (Li & Milhaupt, 2013) in "going global" via intensive capital control, which is prevalent among bureaucratic and interventionist governments in emerging economies (Fogel, 2006).[54] However, the government gives more discretionary power to the degree to which SOEs want to globalize in the later stages of investment. Our interviews with several SOE managers confirm the conjecture of the two-step process.

Based on the above conjectures and observations, we argue that the roles of state ownership control and political connection control differ across the two-step decision process. During the first step when the SOE has not gone abroad yet, globalization decisions are made in the home-country context, where information asymmetry between the state and the SOE manager is low, and administrative orders by the state are frequently used for capital control and industry policies (such as the approval of which companies can go abroad) (Hassard, Morris, Sheehan, & Xiao, 2010; Sun *et al.*, 2014; UNCTAD, 2011). Therefore, under this administrative environment, political connection is a more effective and less costly means for the state to control whether to globalize an SOE and control its manager in order to implement desired globalization strategies. Moreover, this effect should be more salient before governance reform because the administrative governance environment is more conducive to the functioning of political connection control. Therefore, we hypothesize that:

H3a. Managers' political connections function ***more likely*** *in the first step of the globalization decision-making process rather than the second step (especially before governance reform).*

During the second step when the SOE has gone abroad, the decision on the degree of globalization is largely made in the host-country context, where information asymmetry and agency costs between the state and the SOE manager—as well as between the home-country headquarters and the host-country subsidiaries—are relatively high (Denis, Denis, & Yost, 2002; Luo & Wang, 2012). Operational risks also increase during this phase due to uncertainties in overseas sales and productions, which require well-defined risk-sharing mechanisms (Boubakri, Mansi, & Saffar, 2013). Correspondingly, state ownership control is more efficient in curbing managerial-agency problems and thus shaping globalization decisions. In addition, the state can also better distribute

[54] This is confirmed by our interviews with several SOE managers (the interview transcripts are available upon request). See also the recent special report by *Economist* on World Economy: The gated globe. "Capital: just in case" (pp.10-12, Oct. 12th, 2013)

incomes and profits that are obtained from globalization between SOEs and the state based on ownership arrangement (Agmon, 2003), and such ownership arrangement is more likely to be accepted by more developed host countries where formal institutions are well established. Moreover, this effect should be more salient in the period after governance reform because the market-oriented institutional environment is more conducive to the functioning of state ownership control (Globerman & Shapiro, 2009; Luo & Wang, 2012). Therefore, we hypothesize that:

H3b. State ownership control functions ***more likely*** *in the second step of the globalization decision-making process rather than the first step (especially after governance reform).*

Methodology

Data and Sample

We empirically test our hypotheses using data on all non-financial Chinese firms listed on the Shanghai and Shenzhen Stock Exchanges, of which SOEs account for more than 80% of total market capitalization.[55] Our data are obtained from Datastream, WIND, CSMAR, and the China Center for Economic Research (CCER) databases.[56] We manually collect data for our key dependent variable—the firm's degree of globalization (DOG)—and for the variables regarding manager characteristics and backgrounds from their curricula vitae. We cross-validate the company names, stock IDs, and manager names across different data sources and their annual reports, and the inter-code reliability is above 95%. Our sample covers the 2001–2011 period, starting with the implementation of the "Go Global" policy. Before 2001, the outward foreign direct investment (OFDI) volumes from China were very low, which left little data for observation. We exclude the firms that were labeled as *Special Treatment* (ST) by the stock exchanges (under severe financial distress) before 2006. Finally, our sample includes 17,272 firm-year observations (2,394 firms in total, which is more than 92% of all listed firms) from China.[57]

[55] We exclude Chinese firms listed in Hong Kong abroad as they are subject to a different institutional environment and regulations.

[56] A-share refers to the stocks being valued in RMB and available only to Chinese citizens. These are in contrast to B-share stocks that are denominated in RMB but traded in such foreign currencies such as the U.S. or Hong Kong dollar.

[57] We endeavor to coordinate different data sets in a consistent way since we have drawn on a variety of sources. More specifically, our unit of analysis is on the firm level and the firm's managerial backgrounds (each firm usually only has one general manager) are matched with the firm's characteristics. Macro-level data such as the province dummies and provincial-inward FDI are matched with firm-level data and are taken with a natural logarithm to smooth out extreme values.

Empirical Strategy and Descriptive Statistics

To distinguish the effects of the two mechanisms of state control on SOEs' globalization before and after governance reform, which in our case is the 2006 split-share reform in China, we use two approaches. The first approach is to split our sample into the pre-reform subsample and the post-reform subsample; the second is to treat the split-share reform as a natural experiment and test the effect of this shock on the whole sample (Angrist & Pischke, 2009). Figure 1 conceptually illustrates the testable hypotheses on the mechanisms of state control in SOEs' globalization.

[Insert Fig. 1 about here.]

To empirically model the aforementioned two-step decision-making process and deal with the potential self-selection endogeneity issue in globalization, we adopt a Tobit II model that entails a two-step estimation (the Heckman test; Heckman, 1979). In the first step, we create a binary variable (*GOGLOBAL*) as our dependent variable that equals 1 if a firm is involved in globalization (has decided to go global), and 0 otherwise (Sun *et al.*, 2014). The first-step estimation is essentially a Logit model that captures the "self-selection" effect and calculates the inverse Mills ratio (IMR). In the second step, we use a firm's *Degree of Globalization* (*DOG*) as the dependent variable, which is the average of three key dimensions of globalization, similar to Carpenter, Sanders, and Gregersen (2001): (1) the ratio of a firm's foreign assets (foreign production) to its total assets (total production) (*% foreign assets*), (2) the ratio of a firm's foreign sales to its total sales (*% foreign sales*), and (3) the ratio of a firm's number of foreign subsidiaries to the total number of subsidiaries (*% foreign subsidiaries*). We then include the IMR calculated in the first step with other independent variables in the second step. In addition, we control for industry and year fixed effects.

To avoid perfect linearity between the two steps in the Tobit II model, we exclude *Firm Size* in the first step in order to make the number of independent variables smaller than that of the second step. In addition, we use the continuous variable *Government Ownership* in the first step (Cui & Jiang, 2012; Musacchio & Lazzarini, 2012) and replace it with the dummy variable *State Ultimate Control* in the second step (Inoue *et al.*, 2013; Musacchio & Lazzarini, 2012) as the key independent variable because the state's direct ownership is diluted following overseas sales, subsidiaries, and production. Also, we use both the top managers' political backgrounds (*Manager Political*) and the proportion of directors with political ties on the board (*Board Political Ties*) to proxy for executives' political connections (Brockman *et al.*, 2013; Faccio, 2006). Furthermore, we use managers' technology backgrounds and educational levels as proxies for their capability, which is often viewed as MNCs' resources embodied within human capital in the IB literature (Aharoni *et al.*,

2006). Detailed definitions of our key variables are shown in Table 2. The descriptive statistics are shown in Table 3 and the correlations of the variables proposed above are shown in Table 4.

[Insert Tables 2–4 about here.]

Findings

Subsample Analysis

In Table 5, we show the results on the determinants of SOEs' globalization from the Tobin II regressions. We first report the results on the pre-reform sample and the post-reform sample, respectively. As mentioned earlier, in the first step we use *Government Ownership* as the dependent variable to capture direct control by the state through shareholding, while in the second step we use the *State Ultimate Control* dummy to capture the effect of indirect ownership control due to dilution.

[Insert Table 5 about here.]

Several interesting observations appear. First, in terms of the effect of state ownership control (*Government Ownership* or *State Ultimate Control*) on going global and on the degree of globalization, the coefficient is statistically significant only in the post-reform sample, with a one-standard-deviation increase in state ultimate control associated with an approximate 5% increase in the degree of globalization. However, there is no such statistical significance in the pre-reform sample. In contrast, and in terms of the effect of political connections on globalization, the coefficients of *Managerial Political* and *Board Political Ties* are both positive and statistically significant at the 99% level in the pre-reform sample. The marginal effect of managerial political connections increases the degree of globalization by about 3%, while a one-standard-deviation increase in the proportion of politically connected directors on a board is associated with an approximate 2% (0.160 × 0.106 [marginal effect]) increase in the degree of globalization. However, both the statistical significance and the economic significance of these two political connection variables are attenuated in the post-reform sample, and the sign occasionally even becomes negative, making the net-marginal effect on globalization much smaller. Furthermore, the difference in the coefficients between these two subsamples is also statistically significant.[58] The results suggest that the role of state ownership

[58] We generate a dummy variable indicating whether or not the observation belongs to the post-reform sample, and an interaction term between this dummy variable and the "manager political" variable. We then test whether the coefficients of these variables are jointly zero. The F-test rejects the null hypothesis that they are

control has a stronger impact on SOEs' globalization after domestic governance reform than before, while that of managerial political connections has a stronger impact on SOEs' globalization decisions before domestic governance reform. The Z scores from the Wald Chi-square tests for state ownership control, managerial political connections, and board political ties across the two subsamples are all higher than 2, indicating that the effects differ significantly across the two periods. Therefore, both H1a and H1b are supported.

Second, and contrasting the two mechanisms of state control, while the coefficient of managerial political connections is statistically significant and has a positive sign during the first step in the pre-reform sample, neither measure of state ownership control is significant in this period. This finding indicates that before governance reform, the positive roles of the state with regard to globalization function mainly through a manager's political connections rather than through state ownership control. In the post-reform sample, the coefficient of state ownership control becomes more significant than that of managerial political connections and board political ties. This result implies that the effect of the state on SOEs' globalization mainly functions through state ownership control rather than managers' political connections after governance reform. Our H2a and H2b are therefore supported.

We further compare the effects of the two state-control mechanisms on globalization across different decision steps. In the pre-reform subsample, the coefficients of managerial political connections and board political ties are statistically significant in the first step but not in the second step. In the post-reform sample, although the coefficient of *Board Political Ties* is still positive and significant in the second step, its magnitude and significance are much smaller. The statistical significance in the post-reform period may be explained by the fact that board structure is also part of modern corporate governance mechanisms. In contrast, the coefficient of state ownership control is significant in the second step in the post-reform sample but not in the first step throughout the two subsamples. These results confirm H3a and H3b that political connections mainly have an impact on SOEs' globalization in the first step in the home-country context, while state ownership control mainly has an impact in the second step in the host-country context.

In addition, a manager's global mindset (proxied by overseas experience) and education level have significantly positive effects on globalization during both periods, and particularly in the first step in which the home-country context is more significant. The manager's technology background

jointly zero, implying that the coefficients of "manager political" during the pre-reform and post-reform samples are statistically significantly different.

seems to be more important in the first step before governance reform, but this shifts to the second step after reform. These results indicate the importance of management professionalization in globalization.

Natural Experiment Analysis

We then show the results of treating domestic governance reform as a natural experiment to examine the effects of state control on globalization by generating a post-reform dummy and interacting it with our above-mentioned, state-control variables. The results are reported in Table 6 and, as can be seen, the previous results are upheld and become even stronger. In the first step, the coefficients of state ownership control are not significant, while the coefficients of manager political and board political ties are highly significant. However, the coefficients of the interaction terms *Manager political* × *Post-reform dummy* and *Board political ties* ×*Post-reform dummy* are both negative and statistically significant, indicating that the effects of political connections decrease after governance reform. In contrast, in the second-step, the coefficients of *State ultimate control* ×*Post-reform dummy* are positive and statistically significant, indicating that the effect of state ownership control becomes stronger after governance reform, while none of the coefficients of political connections are significant. Therefore, our hypotheses on state control in globalization are upheld in this "laboratory" test.

[Insert Table 6 about here.]

Robustness Checks

We also conduct several robustness tests that include distinguishing between firms with more than 30% state ownership (absolute SOEs) and less than 30% state ownership (non-SOEs), comparing globalization into emerging economies and developed economies, and specifically examining the petrochemical industry, and the metal and non-metal manufacturing industries. We also distinguish between managers with local government backgrounds vs. managers with central government backgrounds, between SOEs controlled by the central government vs. those controlled by local governments, and among managers who are members of Congress, former government officers, or previously in the military services. In general, the results from these robustness tests are similar to, if not stronger than, the previous results, and largely support our state-control perspective on SOEs' globalization.

Discussion and Conclusion

Contributions to the Larger Literature

We see our results as making two important contributions to the IB and SOE literature. First, while numerous studies on this subject have argued that "the state matters" (Alon, Child, Li, & McIntyre, 2011; Child & Rodrigues, 2005; Kalotay & Sulstarova, 2010; Wang, Hong, Kafouros, & Wright, 2012), the underlying mechanisms of how the state influences globalization decision making largely remain as a black box. We fill in the theoretical gap by extending the agency theory and integrating it with institutional analysis in IB to explain the dynamic process of the state's influence on SOEs' globalization. As we show in the cross-sample analysis (i.e., the robustness tests), the presence of the state *per se* is not a key predictor of globalization. Rather, it is the state-led governance and control mechanisms such as government ownership arrangements and executives' political connections that are prevalent worldwide (Faccio, 2006), that carry out the influence of the state.

Second, our research provides a more holistic view on the dynamics of globalization. The existing literature has studied such dynamics both at the macro (institutional) and the micro (corporate) decision-making levels. For example, at the macro level, institutional changes such as structural and governance reforms can affect firms' globalization—not only their exports (Cuervo-Cazurra & Dau, 2009a; 2009b) but also foreign direct investment and operations (Luo, Xue, & Han, 2010). At the micro level, firms' decision making on globalization is not only sequential (Tallman & Shenkar, 1994; Peng, 2012), but also largely contingent on the specific home- and host-country contexts (Cui & Jiang, 2012; Ma & Delios, 2010). Our paper integrates the two levels of dynamics through the connecting link of state-manager relationships and the resulting governance mechanisms. Such a link offers a more in-depth understanding of the patterns of globalization.

Implications for Practice

Our study has important implications for policy makers and practitioners. Policymakers in host countries, especially those in developed economies, usually perceive the entry of SOEs from emerging economies as a political threat, while ignoring the SOEs' market-based economic motivations. Our paper reveals that SOEs can establish market-oriented governance structures that are compatible with host-country environments and also potentially benefit the host country's local economy. For policymakers in home countries, our study implies that as domestic institutions evolve, the ways in which they can effectively globalize SOEs also change. We have witnessed that

governance structures of globalizing SOEs from China (e.g., PetroChina), India (e.g., State Bank of India), Russia (e.g., United Energy System of Russia), Brazil (e.g., Petrobras), and other transition economies become more market-oriented following corporate governance reforms (Gupta, 2005; Inoue *et al.*, 2013). More advanced economies such as Singapore and Norway have taken a step forward and utilized their state ownership in sovereign wealth funds (e.g., Temasek Holdings and the Government Pension Fund of Norway), which hold shares in major SOEs (e.g., Singapore Airlines, DBS bank, SingTel, and Statoil) to pursue long-term financial returns.[59] We expect that the effect of corporate governance reforms on SOEs' globalization will become more salient as emerging economies adopt more market-based institutions.

For SOE managers, our study suggests that understanding when and how different state-control mechanisms affect SOEs' globalization decisions can help them to better leverage their specific institutional advantages. For example, SOE managers should be aware that political connections matter more in the home country when deciding whether or not to go global and may include domestic politicians among board members. They should also be aware that the government's shares matter more in the host-country context when deciding how much to globalize and formulate a joint-ownership structure with foreign partners accordingly. Managers of rival MNCs from developed economies can learn from such state-control dynamics so as to better compete against or cooperate with these emerging giants.

Limitations and Future Research Directions

Despite these contributions and implications, our study is subject to some boundary conditions. First, our focus is on exploring the dynamic state-control mechanisms in SOEs' globalization rather than on directly explaining the dramatic increase in SOEs' globalization, such as the surge of OFDI after China's "Go Global" policy was launched in 2000 (Luo *et al.*, 2010). Second, our focus is on SOEs' "degree of globalization," rather than on the choices of location, industry, and entry mode. As we have discussed, these choices are all under the influence of state control at the macro level (Cui & Jiang, 2012). Third, although the control mechanisms and the decision-making dynamics we described above are prevalent across emerging economies (Hoskisson *et al.*, 2013),[60] there may still be some sample peculiarity issues and more cross-country

[59] *The Economist*, Reforming China's state-owned firms: From SOE to GLC, November 23, 2013. http://www.economist.com/news/finance-and-economics/21590562-chinas-rulers-look-singapore-tips-portfolio-management-soe-glc

[60] Many firms in Brazil, Russia, India, and China sometimes use a third country such as Cyprus, Mauritius, Hong Kong, and the British Virgin Islands to overcome the regulation burdens of capital control in globalization (Hoskisson et al., 2013). However, SOEs, with states' blessings, may have relatively limited burdens in capital control, according to World Investment Report (UNCTAD, 2011: 31), "the number and

comparative studies could be done to further justify the state-control perspective in the future. Fourth, given the common organizational and governance structures of SOEs, our state-control perspective could be extended to contexts other than globalization, such as entrepreneurship, innovations, and corporate financing.

proportion of SOEs that have become transnational is relatively small." For example, only 32 out of over 900 SOEs are MNCs in France that have invested abroad (UNCTAD, 2011; 2013), suggesting that SOEs could be highly selected in the first step of a globalization decision.

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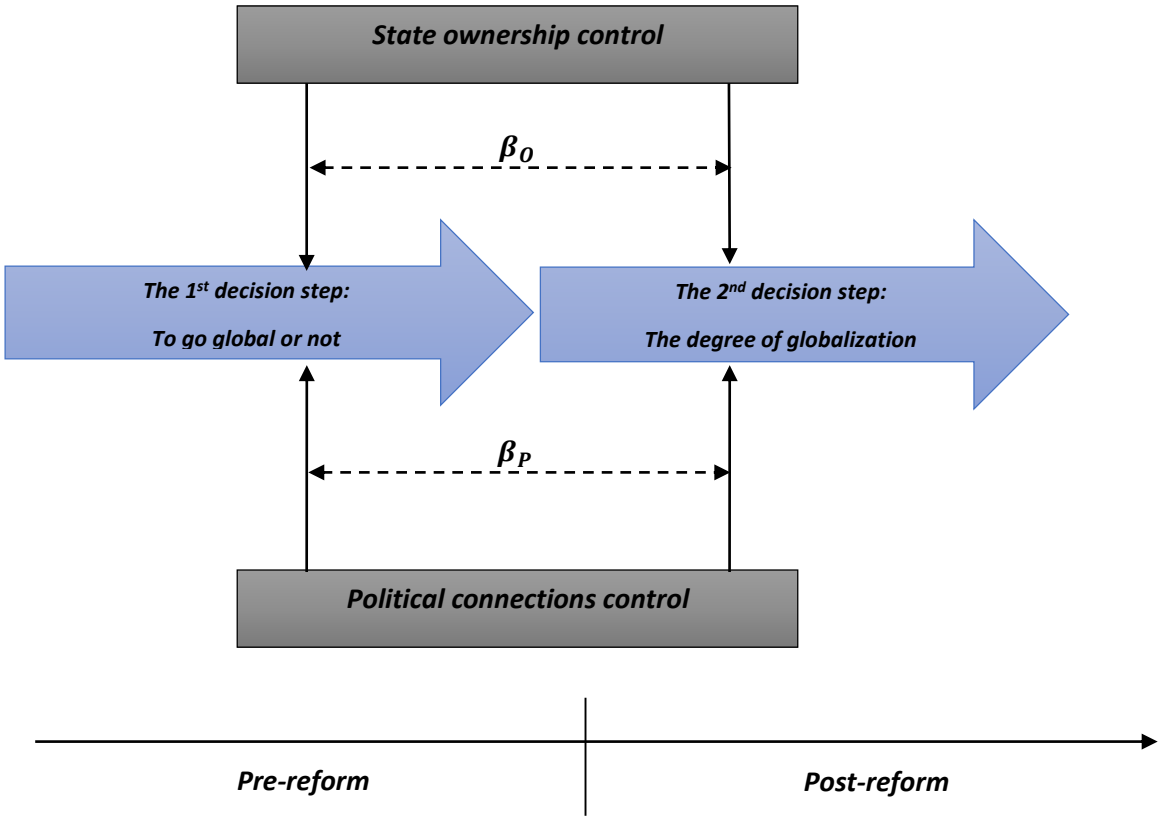

$$H1a: \beta_{O(pre-reform)} < \beta_{O(post-reform)}$$

$$H1b: \beta_{p(pre-reform)} > \beta_{p(post-reform)}$$

$$H2a: \beta_{O(pre-reform)} < \beta_{p(pre-reform)}$$

$$H2b: \beta_{O(post-reform)} > \beta_{p(post-reform)}$$

$$H3a: \beta_{P(1st\ step)} > \beta_{P(2nd\ step)}$$

$$H3b: \beta_{O(1st\ step)} < \beta_{O(2nd\ step)}$$

Fig. 1. An anatomy of state control in SOEs' globalization.

Table 1. State Control on SOEs' Globalization Before and After the Governance Reform: the Chinese Experience

	Before Governance Reform	After Governance Reform
Governance system	Administrative orders in making capital allocation, ownership, location, and other decisions.	Market-based mechanisms in deciding host- country investment strategies for the pursuit of returns.
State-manager relationship	Alignment of interest; SOE managers are directly appointed by the state and usually serve as government officials, which means they are more politically incentivized.	Conflicts of interest; SOE managers are more often elected through shareholder meetings and behave like professional managers, which means they are more economically incentivized.
State's property rights	Unification of ownership and control (such as a large number of non-tradable shares).	Partial separation of ownership and control (such as dispersed state ownership).
State's control rights	State possesses all control rights (in some partially privatized SOEs, voting rights are proportional to shareholdings).	Voting rights are proportional to shareholdings.
SOEs' dividend policy	None; most profit is re-invested in focal SOEs.	The state proposes at least 10% profit paid to all shareholders (including state) as dividends.
SOEs' objectives	Fulfilling political, social, and economic objectives with political and social goals as the dominant objectives in globalization.	Fulfilling political and economic objectives, with economic ones becoming more important in globalization.
Information asymmetry between state and manager	Low asymmetry; the manager, at a low level of the bureaucratic system, is closely watched by state administrators.	High; the state is unable to evaluate managers' performance accurately, especially in foreign markets.
Method of state control	Hierarchy and administration; authority-oriented (such as capital control on the selection and approval of certain SOEs to go global).	Separation of decision control (board) and decision execution (top management team). Involvement-oriented; managers are more professional and given more autonomy and responsibility in making foreign investment decisions.
Incentive structure	Control and monitor using political career under the cadre promotion system.	Facilitate and empower using the cadre promotion system and pecuniary incentives.
Globalization strategy by the state	Increasing societal employment, acquiring critical resources, and enhancing diplomatic relationships in international politics.	Updating economic and industry structures in the global value chain using overseas expansion; protecting energy and raw material supplies.
Managers' behaviors	Government office status with the "iron bowl" (a secured job for life); conservative; seek stable and predictable strategies.	Self-actualizing; become aggressive to win in a competitive environment; adapt quickly to new strategic opportunities with high-order needs.
Governance weaknesses	The absence of market mechanisms; risk aversion, biased judgments, and political patronage.	Unification of the economic and political interests of the state and managers can occasionally be tenuous and problematic.

Table 2. Variable Definition

Variable name	Description	Source
	A. Dependent variables	
Decision of going abroad (GOGLOBAL)	A dummy variable that equals 1 if the firm is involved in globalization during the first step and 0 otherwise (Sun *et al.*, 2014).	WIND, CSMAR, Datastream
Degree of globalization (DOG)	DOG is measured as an index, which takes the average of three firm-level globalization indicators: (1) the ratio of the company's foreign sales to its total sales; (2) the ratio of the company's foreign assets to its total assets; (3) the ratio of the number of the company's overseas branches and subsidiaries to the number of the company's total branches and subsidiaries (both domestic and foreign). This measure depicts the extent of geographical-operations dispersion across countries (Stopford & Wells, 1972) and is widely applied in globalization research (Contractor, Kundu, & Hsu, 2003; Carpenter, Sanders, & Gregersen, 2001; Gomes & Ramaswamy, 1999).	WIND, CSMAR, Datastream
	B. Explanatory variables	
	State control	
Government ownership	Measured as the proportion of the firm's total shares owned by the central or local government or authorities (Cui & Jiang, 2012; Musacchio & Lazzarini, 2012).	WIND, CSMAR
State ultimate control	An alternative measure of state control, measured as a dummy variable that equals 1 if the actual ultimate controller (based either on ownership or voting rights)[61]of the firm is the state or governmental authorities, and 0 otherwise (Inoue et al., 2013; Musacchio & Lazzarini, 2012).	WIND, CSMAR, CCER database
Managerial political connections	Measured as a dummy variable that equals 1 if the top manager worked in the government, government-related agencies, or the military, or was/is a member of the national, provincial, or municipal Congress, and 0 otherwise (Faccio, 2006; Fan et al., 2007: Li & Qian, 2013).	WIND, CSMAR, Sina Finance, annual reports
Board political connections	Measured as the percentage of the number of board members with political ties to the total number of the directors on the board.	
	SOE managers' capability	
Manager overseas experience	Measured as a dummy variable that equals 1 if the top manager has international work experience (including experience in a MNC) or international education, and 0 otherwise. This captures the critical role of managers' global mindset as both a cultural and strategic concept for successful corporate globalization and to achieve economic returns, particularly outside managers' home regions (Levy, Beechler, Taylor, & Bovacigiller, 2007). Such a global mindset can be acquired by international exposure, such as international education and international work experience, as cultural intelligence.	WIND, CSMAR, Sina Finance, annual reports

[61] "Ultimate controller" is defined as the largest shareholder by the number of shares being held, or whose voting rights exceed the largest shareholder of the company, or the shareholder that holds more than 30% of equity stakes and voting rights, or who can determine the nomination of more than half of the directors by exerting voting rights (according to CSMAR). The state could have a pyramid structure in order to control private firms. Our definition of controller is similar to that in Claessens, Djankov, Fan, and Lang (2000).

Manager technology experience	Measured as a dummy variable that equals 1 if the top manager previously worked in the technology sector, and 0 otherwise.	WIND, CSMAR, Sina Finance, annual reports
Manager education	Measured by a score ranging from 0 to 4: zero if a manager's highest education level is below junior college; one in the case of junior college; two in the case of a bachelor degree; three if the manager has graduated with a master's degree; and four for a doctoral degree. Data are manually collected from managers' CVs.	WIND, CSMAR, Sina Finance, annual reports
	C. Control Variables	
Profitability	Measured as the accounting-based return on asset (ROA) calculated by the net income over the total book value of assets, as well as the market-based Tobin's Q calculated as the total equity market value over the total equity book value. Both the ROA and the Tobin's Q are winsorized at the 5% level.	WIND
Innovation	Measured as the number of patents a firm filed at China's State Intellectual Property Office during each studied year divided by the number of employees. This measurement, to some extent, captures the resource-based view (RBV) arguments (Sun, Peng, Ren, & Yan, 2012).	China's State Intellectual Property Office
Inward FDI	Measured as the logarithm of the total inward FDI of the local province and adjusted by the GDP at the province level to gauge the FDI-spillover effect.	China Statistical Yearbook
Leverage	Measured as the ratio of the total debts to the total assets to capture the financial constraints and insolvency capabilities of the company.	WIND
IPO age	Measured as the number of years since the firm's initial public offering, an indicator of how capitalized a firm is or the degree of privatization of the focal firm (being publicly traded can be seen as a symbol of being transformed from state owned to privatized).	WIND
Firm size	Measured as the logarithm of the value of total assets.	WIND
Manager academia	Measured as a dummy variable that equals 1 if the manager has previously worked in academia as a university professor or researcher and 0 otherwise. Data are manually collected from managers' CVs.	WIND, CSMAR, Sina Finance, annual reports
Manager nationality	Measured as a dummy variable that equals 1 if the manager is non-Chinese, and 0 if Chinese. Data are manually collected from managers' CVs.	WIND, CSMAR, Sina Finance, annual reports
Manager age	Measured as the manager's age in the year reported. Data are manually collected from managers' CVs.	WIND, CSMAR, Sina Finance, annual reports
Manager gender	Measured as a dummy variable that equals 1 if the manager is female, and 0 if he is male. Data are manually collected from managers' CVs.	WIND, CSMAR, Sina Finance, annual reports

Table 3. Descriptive Statistics

	Observations	Mean	Std Dev	Min	Max
Go Global (dummy)	14,864	0.135	0.341	0	1
Degree of globalization (DOG)	15,164	0.013	0.044	0	0.618
Government ownership (%)	15,544	24.556	25.791	0	100
State ultimate control	14,650	0.638	0.481	0	1
Manager political connections	16,419	0.203	0.402	0	1
Board political ties	15,190	0.129	0.160	0	1
Manager overseas experience	16,418	0.086	0.280	0	1
Ln (Inward FDI)	16,124	12.814	1.526	5.680	15.26
Leverage (%)	16,666	0.632	7.121	0	877.256
Innovation	15,684	8.699	52.670	0	2800
ROA	15,618	3.896	5.436	-9.607	14.241
Tobin's q	15,519	3.049	2.245	0.916	9.208
Size (Ln(assets))	15,642	21.350	1.240	10.842	28.659
IPO age	16,557	7.430	4.774	0	21
Manager technology	16,421	0.426	0.494	0	1
Manager academia	16,420	0.108	0.311	0	1
Manager nationality	16,424	0.011	0.104	0	1
Manager education	16,292	2.356	0.902	0	4
Manger age	16,353	46.435	6.886	21	75
Manager gender	16,423	0.051	0.219	0	1

Table 4. Pearson Correlation Coefficients between Independent Variables

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
(1) Government ownership	1.000																	
(2) State ultimate control	0.595[a]	1.000																
(3) Manager political	-0.004	-0.033	1.000															
(4) Board political ties	-0.032[a]	0.027[a]	0.202[a]	1.000														
(5) Manager overseas	-0.049[a]	-0.076[a]	-0.045[a]	-0.031[a]	1.000													
(6) Manager technology	0.145[a]	0.179[a]	-0.070[a]	-0.023[a]	-0.046[a]	1.000												
(7) Manager educ, degree	-0.013	0.033[a]	-0.020[b]	-0.016[c]	0.101[a]	0.037[a]	1.000											
(8) Ln (Inward FDI)	-0.261[a]	-0.150[a]	-0.037[a]	0.041[a]	0.079[a]	-0.054[a]	0.082[a]	1.000										
(9) Leverage	-0.003	-0.023[a]	-0.006	0.006	-0.004	-0.014[c]	-0.005	-0.001	1.000									
(10) ROA (Winsor.)	-0.079[a]	-0.102[a]	0.041[a]	-0.015[c]	0.054[a]	0.054[a]	0.053[a]	0.151[a]	-0.038[a]	1.000								
(11)Tobin's q (Winsor.)	-0.217[a]	-0.186[a]	-0.015[c]	0.048[a]	0.022[a]	-0.046[a]	0.075[a]	0.106[a]	-0.018[b]	0.159[a]	1.000							
(12) Innovation	-0.023[a]	0.020[b]	-0.015[c]	0.041[a]	0.017[b]	0.057[a]	0.068[a]	0.056[a]	-0.003	0.065[a]	-0.015[c]	1.000						
(13) Size	0.117[a]	0.246[a]	0.001	0.019[b]	0.035[a]	0.133[a]	0.125[a]	0.109[a]	-0.101[a]	0.155[a]	-0.142[a]	0.234[a]	1.000					
(14) IPO age	-0.133[a]	0.094[a]	-0.061[a]	0.138[a]	-0.030[a]	-0.056[a]	0.107[a]	0.132[a]	0.032[a]	-0.191[a]	0.127[a]	-0.005	0.117[a]	1.000				
(15) Manager academia	0.008	0.003	0.003	-0.006	0.021[a]	0.072[a]	0.135[a]	0.039[a]	-0.008	0.043[a]	0.032[a]	0.033[a]	-0.014[c]	-0.059[a]	1.000			
(16) Manager nationality	-0.067[a]	-0.071[a]	-0.030[a]	0.009	0.264[a]	-0.049[a]	-0.023[a]	0.044[a]	-0.003	0.028[a]	0.040[a]	0.005	-0.005	-0.035[a]	-0.029[a]	1.000		
(17) Manger age	0.026[a]	0.131[a]	0.077[a]	0.031[a]	-0.046[a]	0.035[a]	-0.199[a]	0.096[a]	-0.014[c]	0.048[a]	0.025[a]	0.023[a]	0.175[a]	0.163[a]	0.001	0.043[a]	1.000	
(18) Manager gender	-0.068[a]	-0.063[a]	0.022[a]	-0.006	0.010	-0.079[a]	0.014[c]	0.034[a]	-0.000	0.033[a]	0.008	0.028[a]	-0.016[c]	0.008	-0.007	0.011	0.021[a]	1.000

Superscript a: $p < 0.01$; b: $p < 0.05$; c: $p < 0.10$.

Table 5. Globalization by SOEs: Subsample Analysis

	Pre-Reform Sample		Post-Reform Sample	
	1st step	2nd step	1st step	2nd step
	DV = GOGLOBAL	*DV = DOG*	*DV = GOGLOBAL*	*DV = DOG*
State ownership control				
Government ownership	-0.135		-0.164	
	(0.115)		(0.104)	
State ultimate control		-0.001		0.010**
		(0.007)		(0.006)
Political connections				
Manager political	0.191***	-0.003	-0.099*	0.002
	(0.068)	(0.006)	(0.059)	(0.008)
Board political ties	0.773***	-0.001	0.333	0.040**
	(0.179)	(0.019)	(0.130)	(0.016)
Manager capability				
Manager overseas	0.279***	0.011	0.218***	0.019**
	(0.092)	(0.010)	(0.074)	(0.009)
Manager technology	0.154**	0.003	-0.047	0.017***
	(0.061)	(0.007)	(0.045)	(0.005)
Manager education	0.061*	-0.012***	0.117***	-0.005*
	(0.033)	(0.004)	(0.026)	(0.003)
Control variables				
Ln (Inward FDI)	0.178***	0.003	0.188***	0.002
	(0.022)	(0.003)	(0.020)	(0.003)
Leverage	-0.004	0.001	-0.023	0.008**
	(0.028)	(0.005)	(0.017)	(0.003)
ROA	-0.006	0.002***	0.019***	-0.000
	(0.006)	(0.001)	(0.004)	(0.001)
Tobin's Q	-0.087***	0.004	-0.040***	0.001
	(0.031)	(0.003)	(0.010)	(0.001)
Innovation	0.001**	0.0002***	0.003***	-0.000***
	(0.001)	(0.000)	(0.000)	(0.000)
Size		-0.001		0.007***
		(0.004)		(0.002)
IPO age	0.050***	-0.003**	-0.007	-0.003***
	(0.010)	(0.001)	(0.006)	(0.001)
Manager academia	-0.045	-0.004	-0.003	-0.018**
	(0.088)	(0.009)	(0.070)	(0.009)
Manager nationality	0.412	0.130***	-0.489**	-0.045
	(0.277)	(0.023)	(0.250)	(0.032)
Manager age	0.015***	0.001***	0.011***	0.000
	(0.004)	(0.0005)	(0.003)	(0.000)
Manager gender	-0.275*	0.038**	-0.412***	0.005
	(0.153)	(0.017)	(0.110)	(0.015)
Constant	-4.215***	0.059	-4.347***	-0.004
	(0.396)	(0.091)	(0.335)	(0.068)
Inverse Mills ratio		-0.023*		-0.045***
		(0.013)		(0.011)
Industry fixed effects	Yes	Yes	Yes	Yes
Year fixed effects	Yes	Yes	Yes	Yes
Log likelihood	-1323.046		-2354.048	
Number of observations	4230		6918	
Wald Chi-square	149.35***		86.73***	

* 10% significance level; ** 5% significance level; *** 1% significance level.

Table 6. Globalization by SOEs: Natural Experiment

	First Step *DV = GOGLOBAL*		Second Step *DV = DOG*	
State ownership control				
Government ownership	-0.155	(0.107)		
Government ownership × Post-reform dummy	0.025	(0.144)		
State ultimate control			-0.006	(0.008)
State ultimate control × Post-reform dummy			0.019**	(0.011)
Political connections				
Manager political	0.149**	(0.065)	-0.004	(0.008)
Manager political × Post-reform dummy	-0.230***	(0.086)	0.004	(0.011)
Board political ties	0.899***	(0.170)	0.011	(0.020)
Board political ties × Post-reform dummy	-0.621***	(0.209)	0.034	(0.025)
Post-reform dummy	-1.359***	(0.291)	-0.005	(0.009)
Manager capability				
Manager overseas	0.255***	(0.057)	0.016**	(0.007)
Manager technology	0.009	(0.035)	0.011***	(0.004)
Manager education	0.099***	(0.020)	-0.009***	(0.003)
Control variables				
Ln (Inward FDI)	0.188***	(0.014)	0.002	(0.002)
Leverage	-0.016	(0.012)	0.006**	(0.003)
ROA	0.010***	(0.003)	0.001*	(0.000)
Tobin's Q	-0.036***	(0.009)	0.001	(0.001)
Innovation	0.002***	(0.000)	-0.000**	(0.000)
Size			0.005***	(0.002)
IPO age	0.006	(0.005)	-0.003***	(0.001)
Manager academia	-0.016	(0.054)	-0.013**	(0.006)
Manager nationality	-0.108	(0.173)	-0.067***	(0.019)
Manger age	0.012***	(0.003)	0.001*	(0.000)
Manager gender	-0.357***	(0.087)	0.015	(0.012)
Constant	-4.480***	(0.257)	0.000	(0.055)
Inverse Mills ratio			-0.037***	(0.009)
Industry fixed effects	Yes		Yes	
Year fixed effects	Yes		Yes	
Log likelihood	-3739.401			
Number of observations	11148			
Wald Chi-square	155.32***			

* 10% significance level; ** 5% significance level; *** 1% significance level